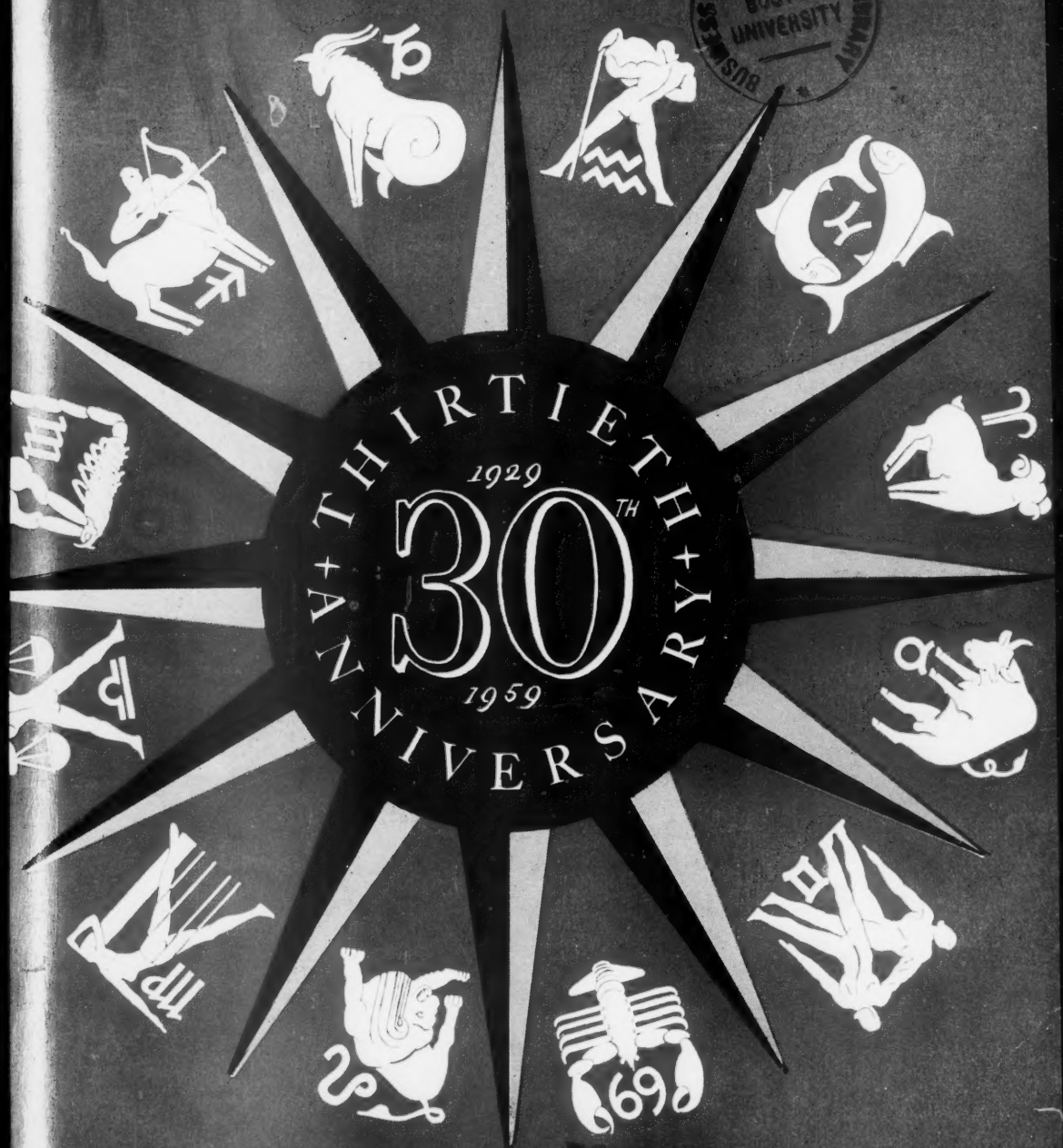
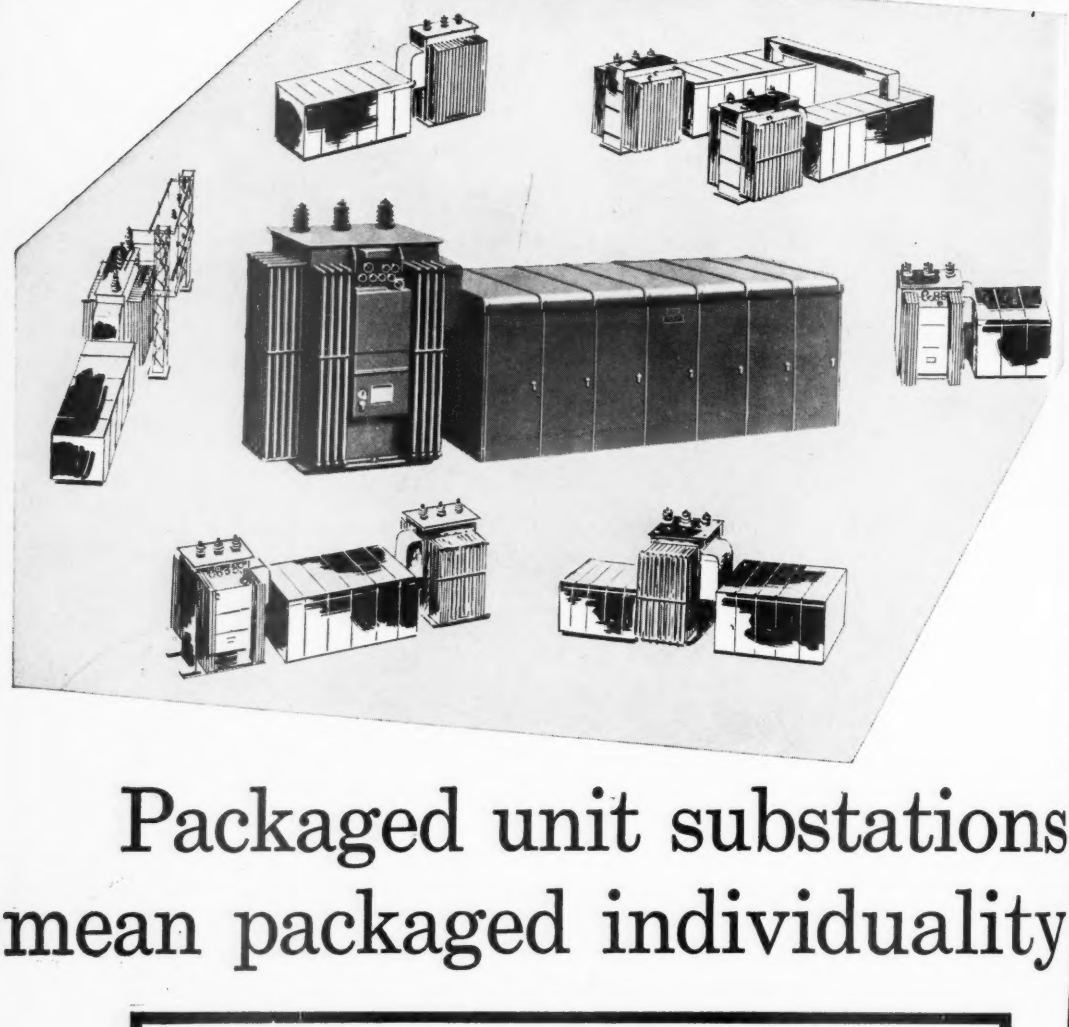
Public Utilities

FORTNIGHTLY



JULY 2, 1959



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PUBLIC UTILITIES FORTNIGHTLY . . stands for federal and state regulation of both privately owned and operated utilities and publicly owned and operated utilities, on a fair and nondiscriminatory basis; for nondiscriminatory administration of laws; for equitable and nondiscriminatory taxation; and, in general—for the perpetuation of the free enterprise system. It is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

Subscriptions: Address correspondence to PUBLIC UTILITIES FORTNIGHTLY, circulation department, 332 Pennsylvania Building, Washington 4, D. C. Allow one month for change of address.

Single copies $1.00. Annual subscription price (26 issues a year): United States and possessions, $15.00; Pan American countries, $15.00; Canada, $16.00; all other countries, $17.50.

Entered as second-class matter April 29, 1915, under the Act of March 3, 1879, at the Post Office at Baltimore, Md., December 31, 1936. Printed in U. S. A.

Public Utilities
FORTNIGHTLY

VOLUME 64 JULY 2, 1959 NUMBER 1

ARTICLES

FEATURE SECTIONS

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS
Executive, Editorial & Advertising Offices ..... 332 PENNSYLVANIA BLDG., WASHINGTON 4, D. C.
Publication Office ..... CANDLER BUILDING, BALTIMORE 2, MD.
Advertising Representatives:
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in Steam Pressures?

Although one unit for supercritical pressure is presently in service and others are under construction, today's pressure plateau is in the 2400-2520 psi range.

It appears inevitable that many new units will be purchased for this pressure cycle, since it offers a heat rate gain of about 185 Btu over the 1800-psi pressure group. With ever-increasing fuel prices, there is ample incentive to move into this pressure range.

In the entire area of high pressures, temperatures and capacities, Combustion is playing a leading role. As indicated by the list on the opposite page, 38 C-E units have been purchased for use in the 2400-lb pressure range and above – 32 of the Controlled Circulation design. The turbine-generator capacity for the 38 units listed totals about 8-million kilowatts. Already, 14 of these units are in service supplying steam to produce more than 2-million kw. One has been in service over 3 years.

Later this year, a C-E Sulzer Monotube unit, designed for the highest steam pressure and temperature ever employed (5000 psi at 1200 F), will go into service at Eddystone Station of Philadelphia Electric Company. Two more supercritical pressure units, for 3500 psi, are presently under construction. Other similar units for subcritical pressures are already in service for Metropolitan Edison Company and Dayton Power & Light Co.

Along with higher pressure, the trend is toward higher unit capacities. In another year, the average size of high pressure units purchased should be up to 250 megawatts as compared to an average of 200 mw, for the units listed on the opposite page.

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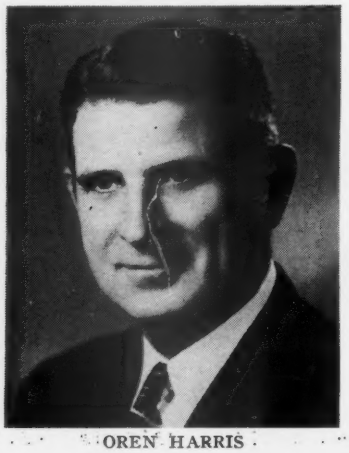
TOPS; PAPER MILL EQUIPMENT; PULVERIZERS; FLASH DRYING SYSTEMS; PRESSURE VESSELS; SOIL PIPE

Pages with the Editors

WITH this special anniversary issue of PUBLIC UTILITIES FORTNIGHTLY, the editors and publishers celebrate three decades of publication of this magazine in its familiar blue cover format, which first appeared, in slightly smaller size, in January, 1929. Considering the mortality rate of magazines in recent years, the celebration of a thirtieth birthday seems entitled to some recognition. When the FORTNIGHTLY first made its appearance there were many proud and distinguished publications in the general magazine field which are with us no longer.

WE recall with regret the passing of such esteemed contemporaries as the *American Mercury, Review of Reviews, Scribner's, North American Review, Liberty,* and others. Perhaps the increased competition for the reader's time and attention, in a complex age where television and radio can be had virtually for nothing at the turn of a switch, is the best explanation for the heavy casualty rate in the periodical field. But a magazine is essentially a clearinghouse of knowledge—midway between the fleeting significance of daily news and the more permanent record of the bound volume. If you would look the word "magazine" up in a dictionary you would find that originally it was an arabic word which found its way into English via French. Basically, it means a storehouse or granary. Thus the magazine of a gun is the chamber where shells are stored before they are fired. You might also say that a thrifty person "magazines" money, in that he stores it up.



OREN HARRIS

H. LESTER HOOKER

THE reader of a magazine, therefore, is, or should be, "magazining" knowledge, whether he realizes it or not. And the knowledge he takes out of this periodical storehouse and places in his mental magazine is designed to make his activity more intelligent, more efficient, and more satisfactory.

THAT may seem to be a broad claim for a publication. But, after all, it is the reader who has the power of judgment in his hands. And if PUBLIC UTILITIES FORTNIGHTLY has survived for three decades, the conclusion would seem to be that—so far, at least—the readers are content with the end product. We hope that, in its chosen field of devotion to commission regulation of public utility industries and allied topics of operation and ownership in these industries, the FORTNIGHTLY will continue to satisfy those who have placed their trust in it by enlisting on its roll of subscribers.

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PAGES WITH THE EDITORS (*Continued*)

To help us celebrate this thirtieth birthday party, we have called upon a number of distinguished people from the fields of regulation, finance, management, and even from the Halls of Congress. As an opener, we are privileged to present an article on "The Triumph of State Commission Regulation," by the president of the National Association of Railroad and Utilities Commissioners. That would be MATT L. MCWHORTER, who is also chairman of the Georgia Public Service Commission. Born in Stephens, Georgia, he was educated at Young-Harris College, Gordon Institute, and the University of Georgia. He was first elected to the Georgia Public Service Commission in 1936.

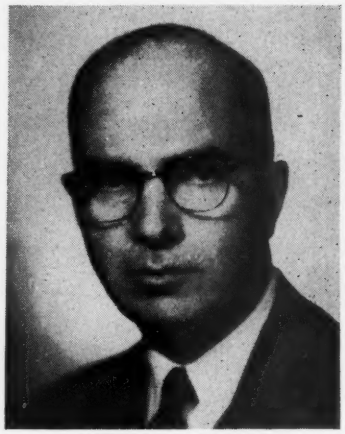
* * * *

ANOTHER veteran of regulation—in fact, he is sometimes known among his fellow commissioner associates as the "dean"—is H. LESTER HOOKER. His article begins on page 10. COMMISSIONER HOOKER was educated at William and Mary College (Phi Beta Kappa) and Washington and Lee University. After practicing law for some years, he was appointed a member of the board of Virginia State Teachers College in 1922. In 1924, he was elected to the state corporation commission, on which he has served continuously ever since.

* * * *

DONALD C. POWER, whose article begins on page 27, is chairman and chief executive officer of the largest independent telephone system in the United States—General Telephone & Electronics Corporation. Born on Christmas day in Paine Station, Ohio, POWER attended Denison University and then the Ohio State University, from which he graduated with three degrees: BS, '22; LLB, '26; MA, '27, and served as an associate professor of economics. POWER was made assistant attorney general and attorney for the Ohio Public Utilities Commission in 1933. From 1939 to 1943, he was secretary to the governor of Ohio. In 1951, after serving as legal counsel in charge of various system telephone rate cases, POWER was elected to be the third president of General Telephone Corporation. He became chairman of the consolidated system this year.

DONALD C. POWER



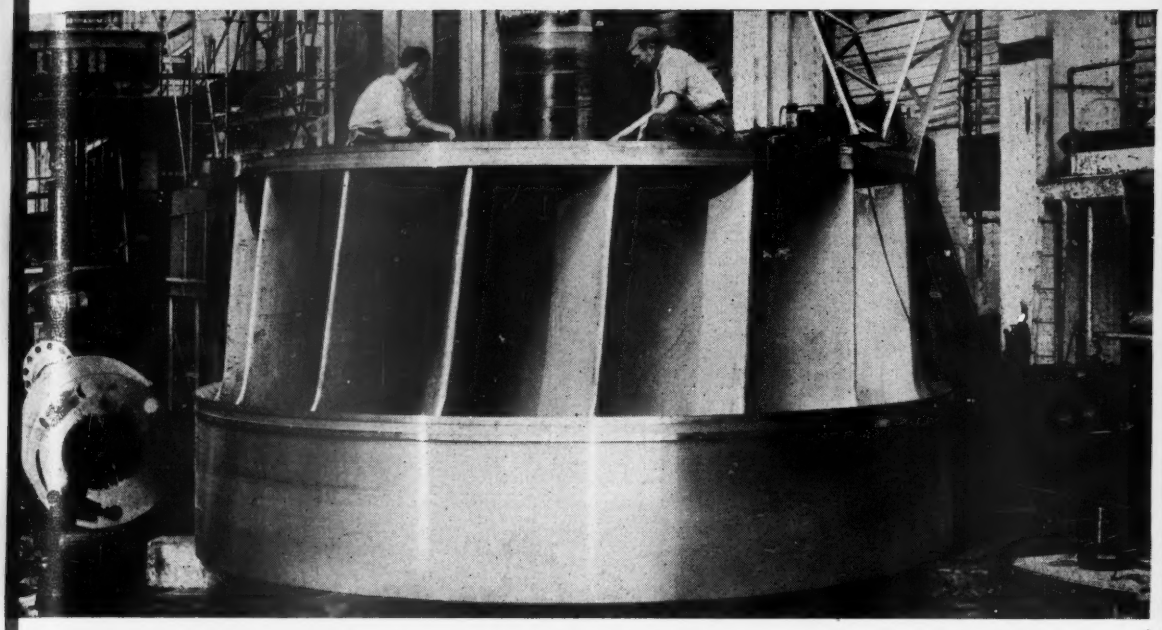
HAROLD H. YOUNG

* * * *

HAROLD H. YOUNG, well-known financial writer, is a partner of Eastman Dillon, Union Securities & Co. Born in New Hampshire, MR. YOUNG graduated from Brown University (MBA, '25) and entered the investment business in Providence, Rhode Island, the same year. He soon specialized in public utility financing, and came to New York to join Eastman, Dillon in 1945. He became a partner in 1948, and is well known for his thoughtful and frequent writings in the field of public utility economics and finance.

THE next number of this magazine will be out July 16th.

The Editors



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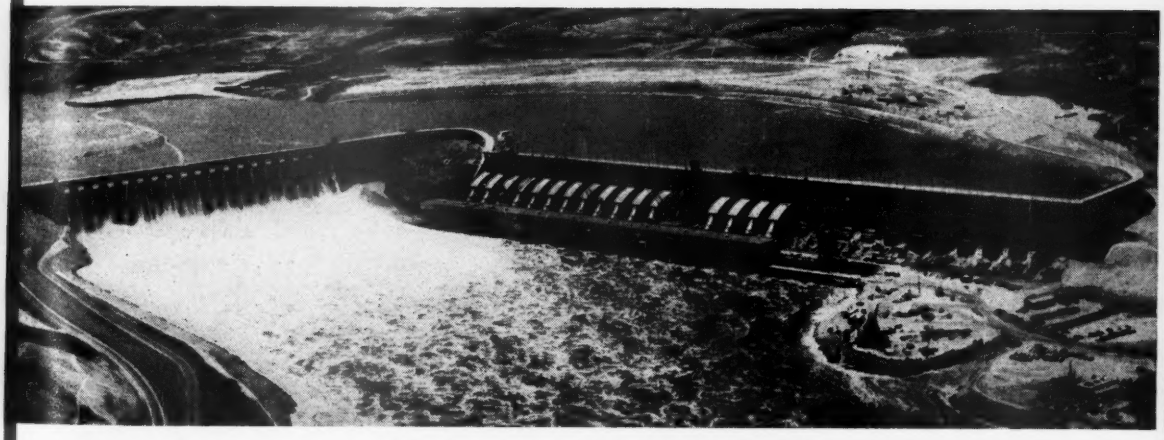

For Chief Joseph Dam in Washington State

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(July 16, 1959, issue)

★

THE PUBLIC RELATIONS OF A TELEPHONE RATE CASE

Telephone companies generally, and other public utilities as well, are finding that recurrent applications for higher rates are unfortunate necessities during this inflationary period. But with each knock on the regulatory door the customer resistance becomes stronger, and other adverse pressures contribute to the utility companies' difficulties. The difficulties lie mainly in the area of public relations. Michael Sheldon, staff supervisor of editorial services of the Bell Telephone Company of Canada, gives a realistic appraisal of practical steps as well as pitfalls to be avoided in maintaining a telephone company's cordial relations with the public during such difficult proceedings.

TAX EXPENSE AND THE INCOME STATEMENT

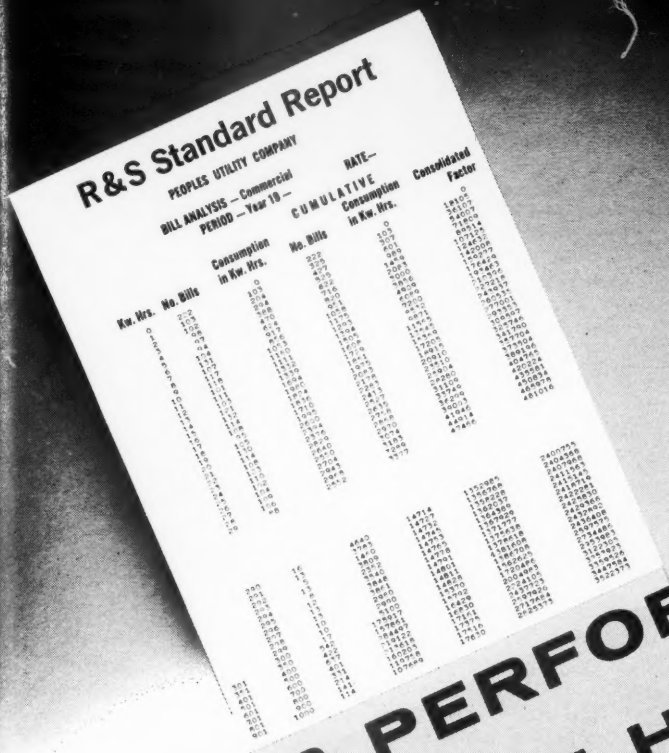
In view of recent court and commission proceedings on this subject, accountants have been giving increased attention to the placement of deferred credits to income taxes on the position statement, as well as to the problems some utilities have incurred over income tax allocation. L. Lynnwood Aris, now a teaching fellow in accounting at the University of Michigan, has written an analysis of the theoretical accounting problems involved. He proposes to show that interperiod tax allocation conforms better with the generally accepted accounting principle of matching expense and revenue than showing the tax actually charged by the goverment on the income statement during a given period.

THE ECONOMIC LIABILITY TO MEASURE COST

James E. Brown of the University of Florida, College of Business Administration, undertakes to show that recent arguments expressed in this publication on the "liability to replace" as a measure of depreciation must be recognized as the old annuity method of depreciation treatment in a new dress. The author concludes that the solution is not to adjust depreciation charges to replacement basis, nor to permit an extra "attrition allowance" in the rate of return. He proposes that inflation losses themselves be recognized on the books of the utility. Only in this way can the evil of inflation be met head on.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others,***



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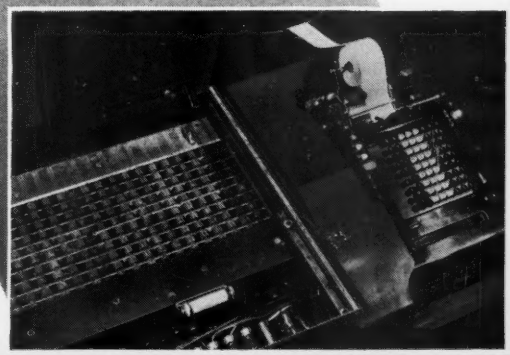

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THOMAS H. KUCHEL
U. S. Senator from California.

"If, when a community of people elect to produce or distribute electric power, that constitutes Socialism, then the great city of Los Angeles practices Socialism—because, like your REA's, it produces and sells electricity to its people. If that is true, then my own home city of Anaheim must plead guilty also."

PAUL S. SMITH
President, Whittier College.

". . . a good specialist is a man who comes to know more and more about the other fellow's specialty. We do not want to wipe out specialization but to guarantee the sort of understanding within it that can be achieved only by a complementary competence in the general field. What we want is a Jack-of-all-trades and a master of one."

RICHARD M. NIXON
Vice President of the United States.

". . . the practice of suggesting that any one program, whatever its merit, can automatically solve the world's problems is not only unrealistic but, considering the kind of opponent who faces us across the world today, actually can do more harm than good in that it tends to minimize the scope and gravity of the problems with which we are confronted."

DWIGHT D. EISENHOWER
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"The human values in America are not going to be promoted unless we are sane and sensible in our fiscal policies. . . . I know of nothing that could injure the great population, 174 million people we have got, than to allow budgetary process to get out of control, fiscal measures going loosely, in such a way that—just inflation would absolutely be inevitable."

RAYMOND MOLEY
Columnist.

"Power is a heady narcotic. The more power vested in a man, the more his mind will be closed to the healthy atmosphere of reality. . . . Gradually, he identifies his wishes with the will of the people. Finally, he believes that whatever he says is true. Because of this human frailty the principle of a government of laws, not men, was established and constitutions were made."

WILLIAM A. MCDONNELL
President, Chamber of Commerce of the United States.

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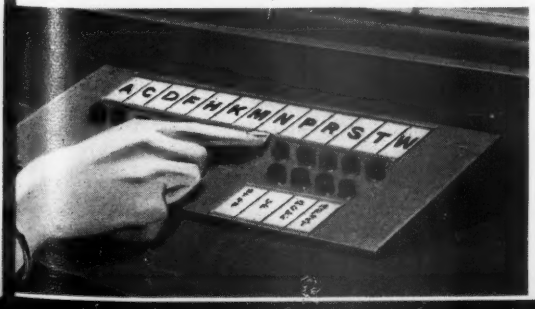

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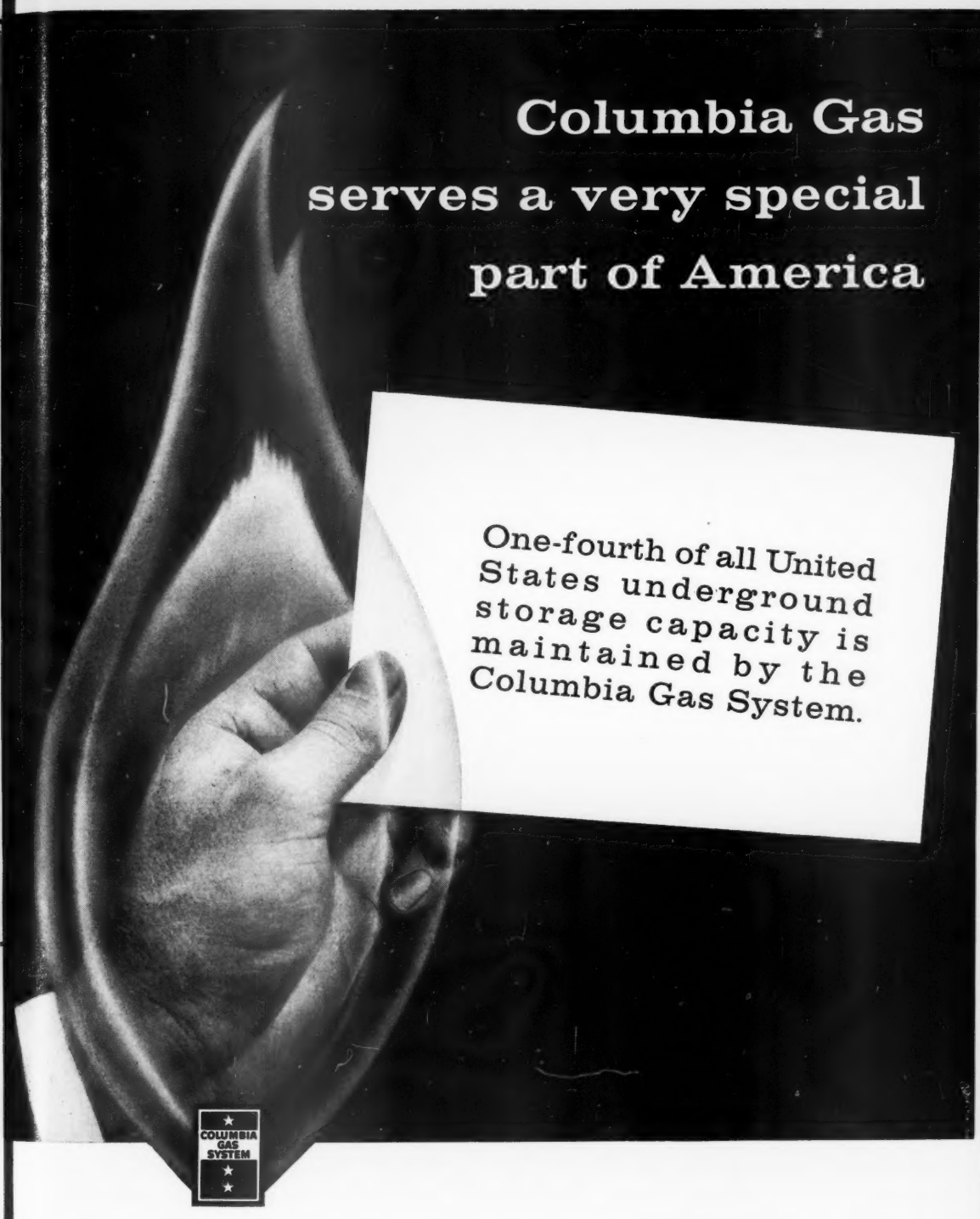

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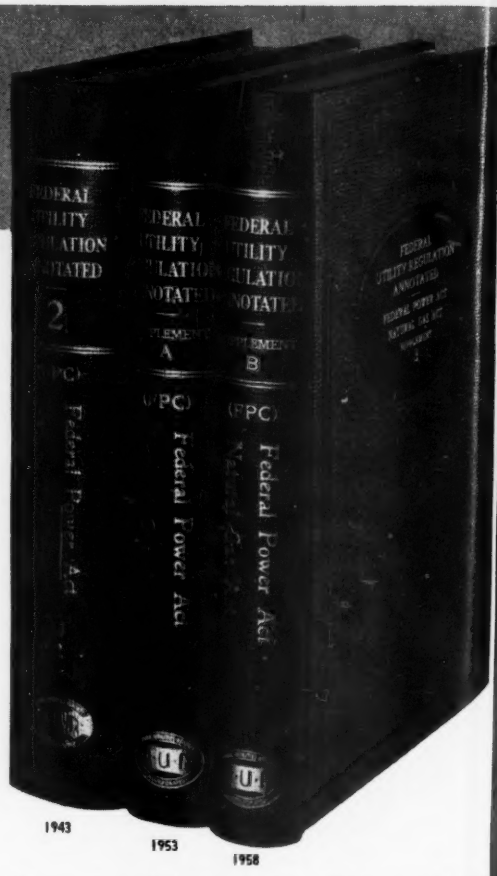

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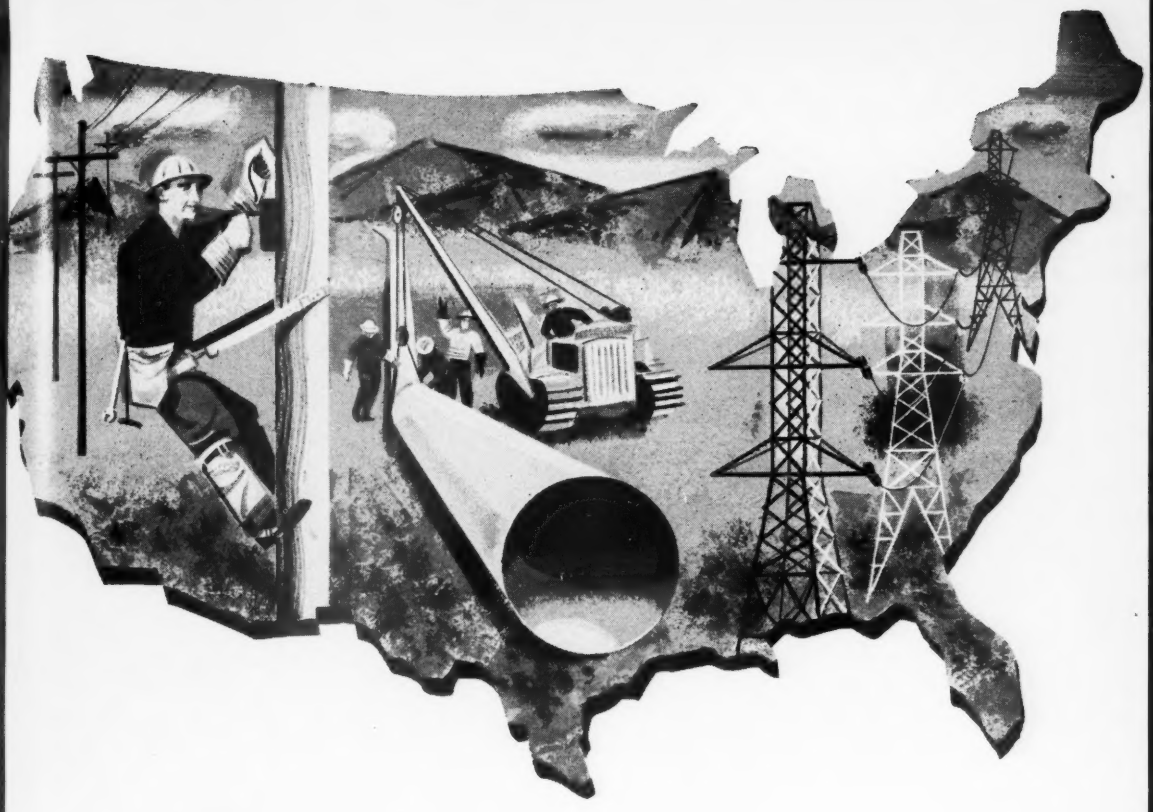

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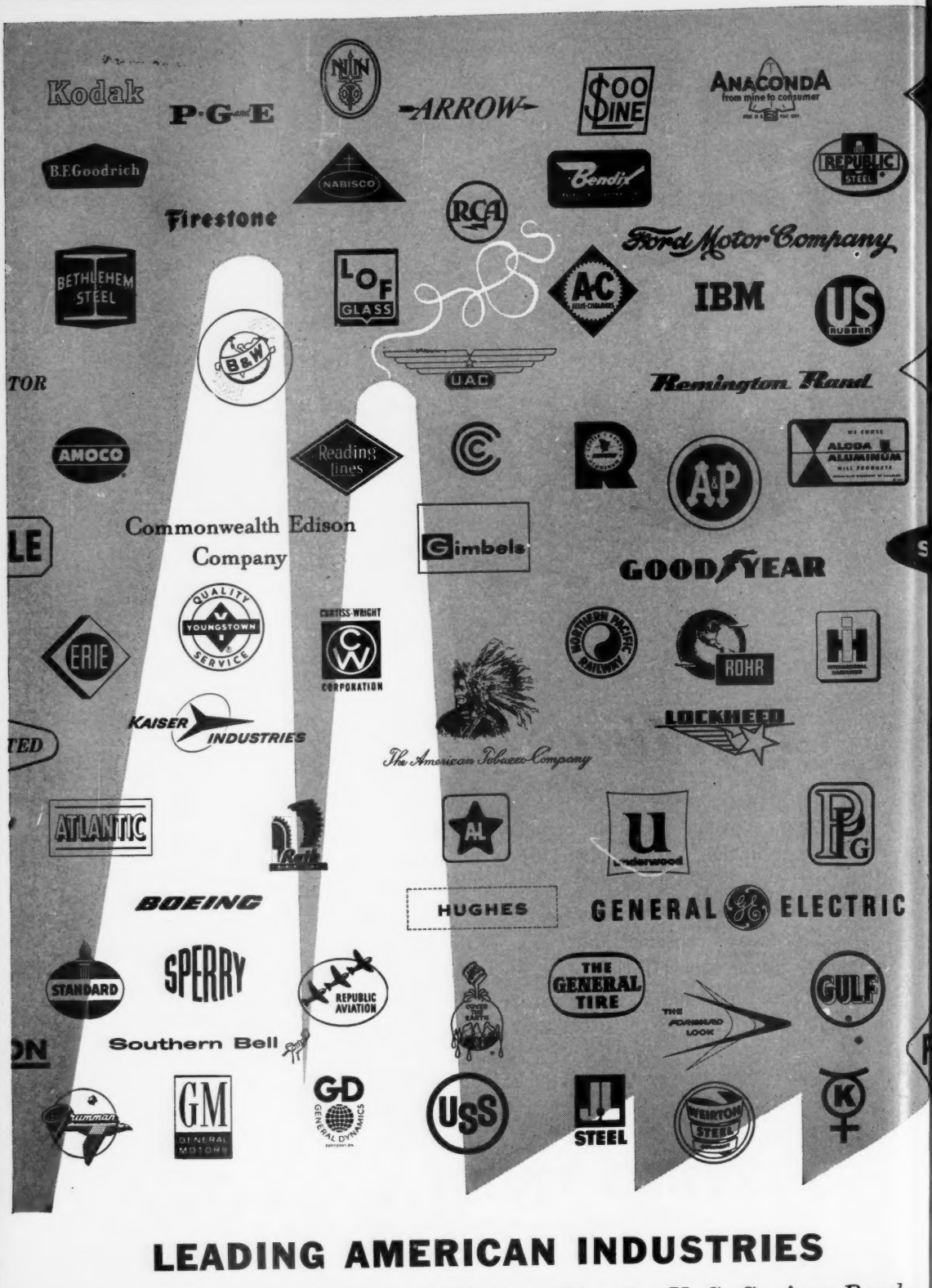

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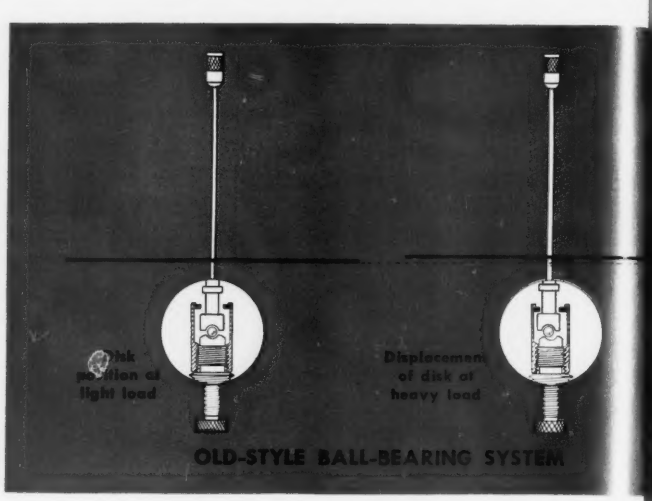

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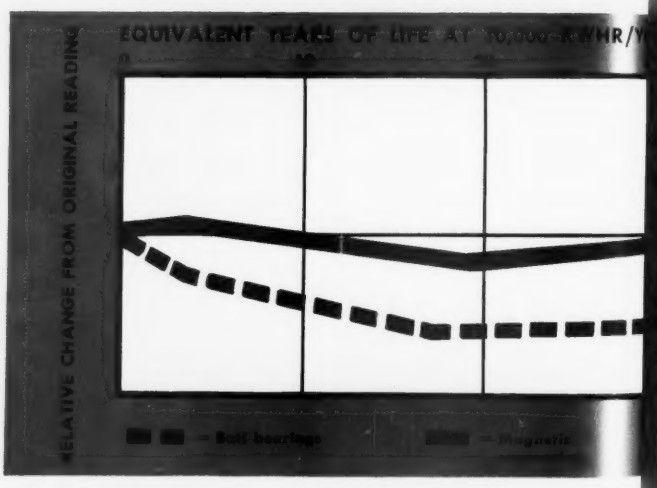

3 REDUCED TILT ERROR

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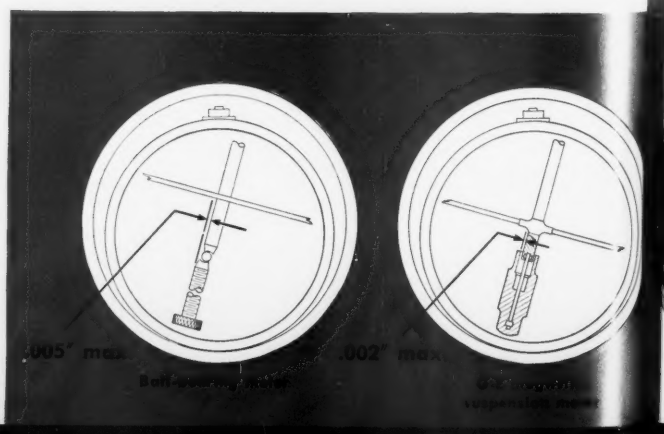

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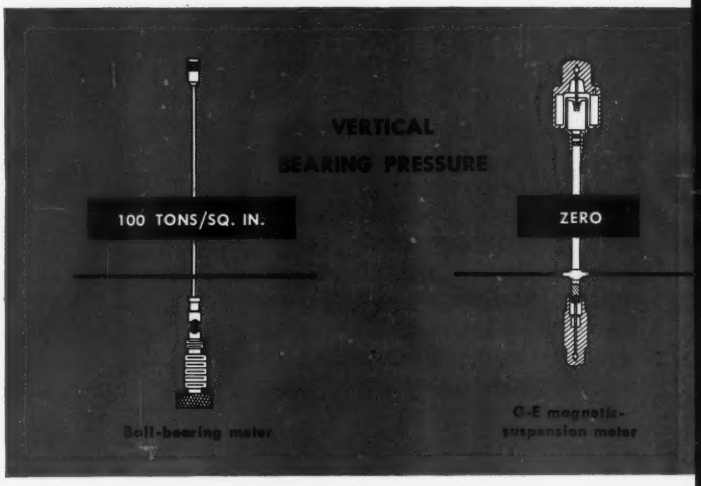

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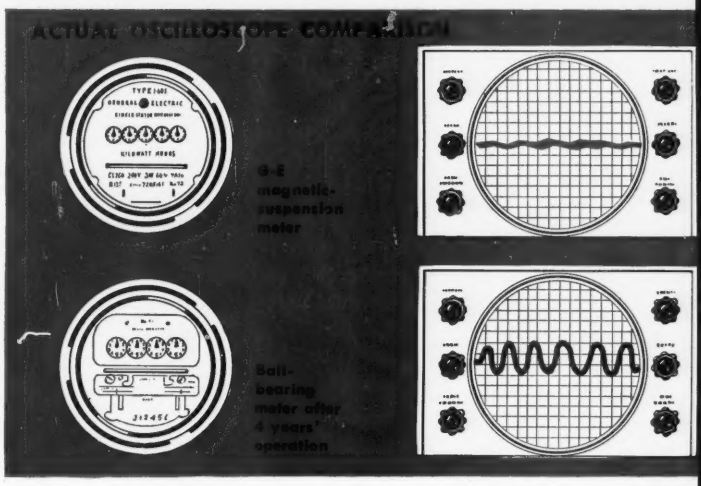

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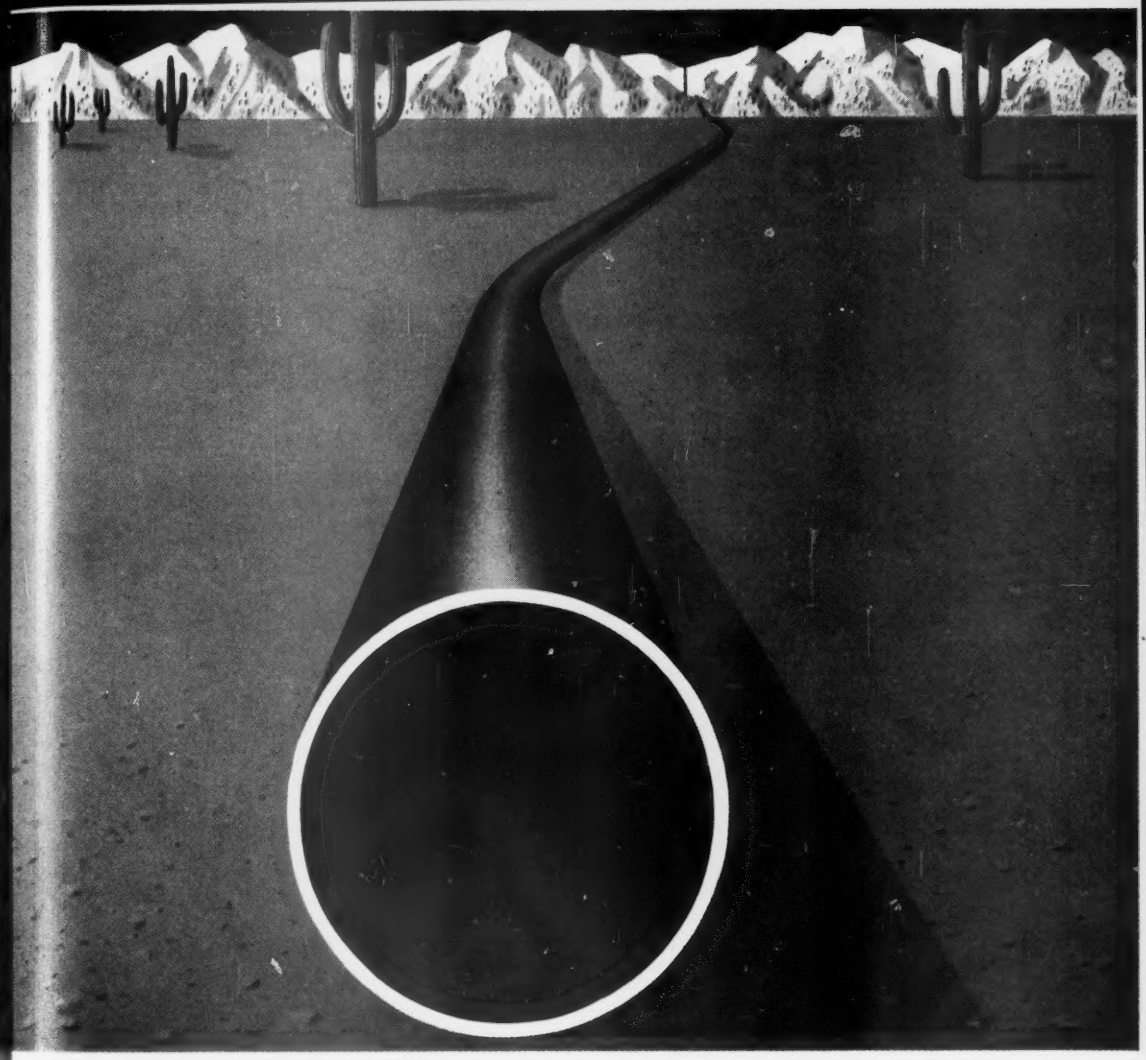

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JULY

Thursday—2 *Annual Conference of Utility Commission Engineers ends, San Francisco, Cal.*	**Friday—3** *Western Summer Radio-Television and Appliance Market will hold western merchandise mart, San Francisco, Cal. July 20-24.* ***Advance notice.***	**Saturday—4** *Eighth Utility Management Workshop will be held, Harriman, N. Y. July 26-Aug. 7.* ***Advance notice.***	**Sunday—5** *Advertising Federation of America begins management seminar in advertising and marketing, Cambridge, Mass.*
Monday—6 *Edison Electric Institute, Accident Prevention Committee, begins meeting, Los Angeles, Cal.*	**Tuesday—7** *American School Food Service Association begins meeting, San Francisco, Cal. Aug. 9-13.* ***Advance notice.***	**Wednesday—8** *Midwest Shippers Advisory Board begins meeting, Milwaukee, Wis.*	**Thursday—9** *American Bar Association will hold annual meeting, Miami Beach, Fla. Aug. 24-28.* ***Advance notice.***
Friday—10 *American Dietetic Association will hold meeting, Los Angeles, Cal. Aug. 24-28.* ***Advance notice.***	**Saturday—11** *American Institute of Electrical Engineers will hold petroleum industry conference, Long Beach, Cal. Aug. 25-27.* ***Advance notice.***	**Sunday—12** *American Water Works Association begins annual conference, San Francisco, Cal.*	**Monday—13** *Mid-West Gas Association will hold gas school and conference, Ames, Iowa. Aug. 26-28.* ***Advance notice.***
Tuesday—14 *New Jersey Gas Association will hold annual convention, Asbury Park, N. J. Sept. 4.* ***Advance notice.***	**Wednesday—15** *Illuminating Engineering Society will hold national technical conference, San Francisco, Cal. Sept. 7-10.* ***Advance notice.***	**Thursday—16** *Tennessee Telephone Association will hold annual convention, Nashville, Tenn. Sept. 9, 10.* ***Advance notice.***	**Friday—17** *Pacific Coast Gas Association will hold annual meeting, Los Angeles, Cal. Sept. 9-11.* ***Advance notice.***

Original Cover Reproduction of the First Issue

(See "Pages with the Editors.")

Public Utilities
FORTNIGHTLY

VOLUME 64 JULY 2, 1959 NUMBER 1

The Triumph of State Commission Regulation

By the Honorable MATT L. McWHORTER*
Chairman, Georgia Public Service Commission

The fine record of progress made by regulatory commissions during the past thirty years has proved beyond all question their basic soundness. Commissions have played an important part in preserving private enterprise for the utility industry. But unless we strive to maintain our dual federal-state system of government, abusive discriminations will continue that contradict the essential reason for the existence of our regulatory agencies.

HAVING been privileged to have been a member of a utility regulatory commission for twenty-three years and chairman for the past ten years, I have, of necessity, been an attentive student of the remarkable progress of regulation during the life span of the FORTNIGHTLY. All too often we become so engrossed in the happenings of today that we overlook the advantages of a brief pause to review the achievements of the past as a guide for the future. I, therefore, welcome this opportunity to express my appraisal of the recent course of regulatory progress and some thoughts as to its future possibilities.

It has been said that the rise of administrative agencies has probably been the most significant trend of the century in our legal processes. Some have even gone so far as to characterize these bodies as the fourth branch of the government. While I personally view the administrative agency as a development well within

*For additional personal note, see "Pages with the Editors."

our concepts of a triune system, I do not question that it is the most significant legal trend of our lives for probably more segments of our economy are affected by administration decisions than those of all the courts, review of these decisions excepted.

Some Historical Background

PRIOR to reviewing the happenings of the past "Thirty Years of Regulatory Progress," it is necessary to develop some understanding of the historical background of utility regulation in order that the significance of the period under discussion may be considered in its proper perspective. Public service commissions, first generally known as railroad commissions, were created as a result of the recognition by state legislatures that the railroad industry had become so large and powerful that regulation of some character was needed. Early attempts to provide this regulation by direct legislation proved to be cumbersome and impractical. The details of the industry were too complex to cover by complete legislation requiring only judicial enforcement. Legislators found themselves immersed in a seemingly endless endeavor to the exclusion of other equally important duties. Thus was born the idea of an administrative agency to relieve them of their burdens.

It is a fundamental constitutional principle that the powers granted to a legislative body by the people cannot be delegated. However, the need for constant surveillance and flexibility in an ever-increasingly complex society dictated the inauguration of commission regulation. A sort of administrative agency empowered to legislate within certain fixed limitations and prescribed standards was set up with legislative powers to provide regulation for businesses declared by the legislature to be public utilities. The legislative standard laid down for the guidance of such bodies was the rule of reasonableness.

UNDER constitutional government the legislative function is exercised in complete freedom and without restraint so long as that exercise is confined within the limitations of the power granted it by the people. It lies within the power of the court to refuse to give effect to legislation which may transgress that grant of power, but the courts may not direct or limit the freedom of legislative action.

By the same token, the regulatory commission acts with complete legislative freedom within the ambit of the authority granted to it, as well as within the constitutional limitations of the legislature which gave it being, and the courts cannot direct the rule-making or legislative functions of a regulatory commission.

Inasmuch as regulatory commissions were imbued with the necessary powers to curb abuses and excessive earnings, it was quite natural that they should be resisted by some utility managements. Great effort was directed to the delimiting of this complete legislative freedom of action by commissions. In the earlier days these endeavors were rebuffed. In 1877, Justice Waite, in the case of Munn *v.* Illinois, 94 US 113, 114, the court declared that the power to regulate carries with it the power to destroy but that the relief from legislation is at the polls and not in the courts. However, in 1886, this same justice, in the Railroad Commission cases, 116 US 307, backed away somewhat from his earlier pronouncement as to complete legislative freedom, as set forth in the

Munn case, and in his obiter dictum laid the foundation for the development of safeguards against confiscation when he said:

> From what has thus been said it is not to be inferred that this power of limitation or regulation is itself without limit. This power to regulate is not a power to destroy, and limitation is not the equivalent of confiscation.

Famous Smyth *v.* Ames Case

THE decision in the case of Smyth *v.* Ames, 169 US 466, in 1898, marked the beginning of a renewed struggle for the imposition of legal restriction and court direction in commission regulation. It also marked the beginning of a groping search for a sound method for the determination of the value of the utility property devoted to the public use. In this case it was pointed out for the first time the necessity for a commission to make a finding of value and enumerated as matters to be considered in making such determination:

(1) The original cost of the property.

(2) The estimated cost of its reproduction.

(3) The financial history of the enterprise.

(4) And all other relevant facts.

IT WAS in this decision that the so-called **fair return on fair value** rule was promulgated and, on the basis of which, the reproduction cost new method of evaluation was predicated. In the course of time the rule was all but perverted to a **fair return on reproduction cost** rule. It is difficult to understand just how any such meaning could have been read into the Smyth **v.** Ames case because, as stated above, it merely designated "reproduction cost new" as one of the many elements of value to be considered. But Smyth **v.** Ames was urged as mandatory authority for a rule that reproduction cost must be ascertained and considered and reflected in the value found, and that rule all but gained acceptance.

In one jurisdiction, at least—*viz.*, the state of Ohio—it was written into the legislative standards controlling the Ohio commission.

Subsequent Decisions

THERE followed a long line of decisions in which the courts sought to establish the law upon a basis which would operate to direct the rate-making process for regulatory commissions. The character of these decisions is exemplified in the Indianapolis Water Works Company case, 272 US 398, wherein the court undertook a complete redetermination of the facts.

Thus at the time the first issue of the PUBLIC UTILITIES FORTNIGHTLY was published, it could be said that regulation had grown to young manhood and, like most young men, it found that it would be sorely taxed to realize the dreams and ambitions of its parents. Although commissions were imbued with legislative power, which function is by definition not subject to judicial direction, they found that such direction had in fact taken place.

This trend continued and, in 1930, in United Railways & Electric Co. *v.* West, 280 US 234, decided in 1930, the court issued one of the most extreme decisions in the books in the substitution of judicial direction for legislative discretion in rate making. In that case Justice Sutherland states:

> . . . It is manifest that just compensation for a utility, requiring for efficient public service skillful and prudent management as well as use of the plant, and whose rates are subject to public regulation, is more than current interest on mere investment. Sound business management requires that after paying all expenses of operation, setting aside the necessary sums for depreciation, payment of interest and reasonable dividends, there should still remain something to be passed to the surplus account; and a rate of return which does not admit of that being done is not sufficient to assure confidence in the financial soundness of the utility to maintain its credit and enable it to raise money necessary for the proper discharge of its public duties.[1]

THE swing back from the extreme point, reached in those cases, began in 1933 with the Los Angeles Gas & Electric Corporation case, 289 US 387, 304. In that case the court declared that it was not concerned with the method used by the legislative agency, but only with the question whether the rates finally prescribed were confiscatory. The court, in effect, rules that no matter what errors were made in determining the rate base, if one error offset another, and the rate base, as used, was large enough to cover all the property, the errors were of no consequence. In the opinion, written by Chief Justice Hughes, the court said:

> . . . The legislative discretion implied in the rate-making power necessarily extends to the entire legislative process, embracing the method used in reaching the legislative determination as well as that determination itself. We are not concerned with either, so long as constitutional limitations are not transgressed. When the legislative method is disclosed, it may have a definite bearing upon the validity of the result reached, but the judicial function does not go beyond the decision of the constitutional question. That question is whether the rates as fixed are confiscatory. . . .[2]

Trend Is Curbed

HOWEVER, this trend was not destined to become a landslide.

A strong dissenting opinion was entered by Justices Butler and Sutherland, hewing to the line of United Railways & Electric Company case cited above. And in 1935, the swing of the pendulum was almost reversed in West *v.* Chesapeake & P. Teleph. Co. 295 US 662, 675.[3] There the court set aside a rate order of the Maryland commission because that commission had brought an earlier decision down to date by using price trends instead of by making a new appraisal.

That case, however, was soon followed by the Pacific Gas and Electric Company case, 302 US 388, decided in 1938.[4] There the court emphasized what it had said in the Los Angeles case, and reversed a dis-

[1] PUR1930A 225, 229.

[2] Los Angeles Gas & E. Corp. *v.* California R. Commission, PUR1933C 229, 240.

[3] 8 PUR NS 433.

[4] California R. Commission *v.* Pacific Gas & E. Co. 21 PUR NS 480.

trict court judgment, which had set aside a rate order of the California commission because the commission, in a rate proceeding, had made no finding of value and had stated that it used, as a rate base, the prudent investment as found by the commission.

The Pacific Gas and Electric Company case was followed by the Natural Gas Pipeline Company case, 315 US 575, 586, decided in 1942, in which the court held:

> The Constitution does not bind rate-making bodies to the service of any single formula or combination of formulas. Agencies to whom this legislative power has been delegated are free, within the ambit of their statutory authority, to make the pragmatic adjustments which may be called for by particular circumstances.[5]

This case states the constitutional rule as it is applied today.

THE due process clause of the federal Constitution operates as a limitation upon the legislative power of commissions, federal and state, in making rate laws for the companies subject to their jurisdiction, but does not direct the way they shall exercise their power. When a commission has made rates for any company its order may still be challenged, on the ground that the rates prescribed are confiscatory, and, thereupon, the court will determine whether they are confiscatory, by considering the amount of revenue they will produce, and not the way they were made.

Economic Effect Principle

THE decisions of the United States Supreme Court since the Natural Gas Pipeline Company decision indicate that in rate cases, where confiscation is claimed, the economic effect of the rates involved will be a dominant consideration with the court. In the Hope Natural Gas Company case (1944) 320 US 591, 602, 603, Mr. Justice Douglas said:

> . . . the fixing of "just and reasonable" rates, involves a balancing of the

[5] Federal Power Commission *v.* Natural Gas Pipeline Co. of America, 42 PUR NS 129, 138.

investor and the consumer interests. . . . From the investor or company point of view, it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. . . . By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[6]

[6] Federal Power Commission *v.* Hope Nat. Gas Co. 51 PUR NS 193, 200.

THE HOPE Natural Gas decision was acclaimed at the time of its rendition as having put to rest the ghost of Smyth v. Ames. As a matter of fact, it merely restored the legislative freedom of regulatory commissions and left to them the consideration of all pertinent factors in reaching a decision as to fair value and a fair return thereon. One or two jurisdictions, such as the state of Ohio, have established as a legislative standard the "reproduction cost new" theory of determining fair value and where such legislative standards have been prescribed they must, of course, be followed.

Fruition of Regulation

ONE hundred and twenty-five years of regulatory development, with some litigious and truculent utility managements testing and trying in each ascending step of the courts, have finally succeeded in bringing commission regulation to full fruition. These agencies to which legislative power has been delegated are now free within the scope of their statutory authority to make the pragmatic adjustments that may be called for by particular circumstances. In the exercise of these regulatory powers, the commission must give consideration to all relevant facts. In rate making, it should inquire into the degree of honesty and efficiency exercised by utility management in the conduct of its business. The character and adequacy of its service should be tested by the first rule of regulation; *i.e.*, "reasonableness." Any change of conditions or circumstances which may affect the use or nature of the service rendered must be taken into account in the final determination.

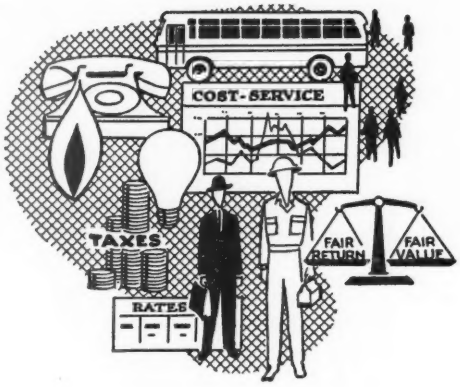
In other words, commissions are not called upon or required to burden consumers with rates designed to insure a return to the owners without regard to the conduct of its affairs, its service, or its present condition of usefulness.

THIS restoration of the legislative freedom of regulatory commissions imposed the urgent obligation and necessity of developing factors and guiding standards to facilitate that ultimate conclusion which must "balance the consumer and investor interest."

In this undertaking, commissions have labored untiringly to develop methods and procedures that would meet the rule of reasonableness and that were readily ascertainable and subject to uniform application.

The meeting of this responsibility

was, in many cases, beyond the physical capabilities of the individual commission and its usually overworked staff. Unlike their federal counterparts, the state commissions are not limited in scope to one or two major utility industries. Instead their jurisdictions generally extend across the entire utility field.



Assistance of National Regulatory Association

FINDING it impossible to keep currently abreast of the many complexities of every industry under their jurisdiction, and being faced with the practical necessity of avoiding undue conflict with neighboring jurisdictions, the commissions turned to their national association for assistance. The result has been the formation of many standing committees of commissioners and their staff subcommittee of experts in many fields. These committees have undertaken long and highly technical studies completely beyond the resources of the individual commissions, and the results of their investigations have been made available not only to the association members but to the industries as well. These committees have sought and generally obtained excellent co-operation from their federal counterparts.

As a result of these efforts, a marked improvement has been attained in the quality of the regulatory processes. Also, substantial uniformity has been achieved in those areas where jurisdictional agreement has been essential. General acceptance of the recommendations of the national association has tended to lend them great weight of authority not only by the individual commissions, but by the courts as well.

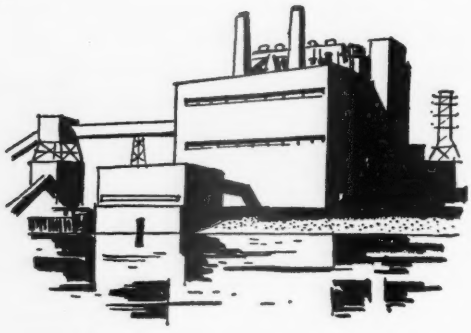
It is worthy of note to point out here that the state commissions have, so far as the Federal Communications Commission and the Securities and Exchange Commission are concerned, been able to function in their respective spheres of responsibility without the slightest friction or misunderstanding, and together have done a complete and thoroughly satisfactory job in providing regulation for the affected services.

The same can now also be said as to the present working relationship with the Federal Power Commission. In the early years of its expanded authority, difficulty was experienced with its federal and public ownership-minded members, but the errors they committed have now been corrected by litigation and congressional amendment.

Regrettable ICC Doctrine

UNFORTUNATELY, the Interstate Commerce Commission has persistently over all the years of its existence sought extension of its regulatory control over the railroad industry into areas rightfully belonging to state jurisdiction. The actions of this agency stand as the one blot on an otherwise commendable record of the regulation commissions.

The use of the conveniently nebulous doctrine of "burden upon interstate commerce" by the Interstate Commerce Commission and the destructive competition bred by the provisions of § 22 of the Interstate Commerce Act, have severely eroded the authority of the state regulatory commissions in the railroad field. The Transportation Act of 1958 removed from state jurisdiction the passenger services of the railroads which had been under state control since the birth of our modern regulatory agencies.



Federal Encroachment Dangers

THIS persistent invasion of state regulatory authority by the federal government is the greatest danger facing regulation today and, viewed in its broad implications, poses a serious threat to the continuation of our dual system of state and federal governments. It is the only cloud on an otherwise clear and unlimited horizon.

The far-reaching effects of this danger are best exemplified by the decision in California Public Utilities Commission *v.* United States (1958) 355 US 534, 356 US 925.[7] This decision negates the statutory authority of the California commission over negotiated rates for the federal agencies, and the intent, of course, is to use that case as a precedent to remove all state authority over such transportation. However, this motive only scratches the surface of the numerous possibilities opened up by this decision. The next logical step is to apply this ruling to all utility services. And judging from the recent sword rattling of the General Services Administration, I do not anticipate a long wait before such action is instituted.

The result of such encroachment upon state authority will result in the most abusive form of discrimination—that very discrimination which was one of the basic motivations for the formation of our regulatory agencies and one of the avowed reasons for their very existence, even under federal law.

[7] 23 PUR3d 55.

THE TRIUMPH OF STATE COMMISSION REGULATION

Commissions' Records Have Been Good

AS I SEE IT, the test of time and the record of performance over the past thirty years serve to justify the soundness of the institution of commission regulation. Having had its legislative freedom restored, it has proven successful and can be credited with having played no small part in preserving the utility industry for individual initiative and private enterprise. Its only defeat has been at the hands of an avaricious federal government, and the final bell of this battle has not yet sounded.

Regulatory commissions, being governmental agencies, are subject to the weaknesses inherent in our democratic system but, by the same token, they embody the force and strength of the people who give them being.

As evidenced by the high record of attainment their administration, over the years, has been entrusted to men of vision and character, possessed of a true sense of public trust. Commissions can justly be proud of the record that has been achieved and should jealously guard the heritage of useful service that has come down to them, and the public should be equally alert to maintain that same high standard of individual administrators.

THE future of regulation has every prospect of being as sound and rewarding as its past, provided only that we can maintain our dual system of government which is the foundation of this nation's success and prevent the ever-covetous federal government agencies from further encroachments into the fields properly in the sphere of state regulation.

First Washington City Telephone Directory

THE first published telephone directory for Washington, D. C., bears the date of April 8, 1879, and was issued by the old National Telephone Exchange.

This was the original telephone organization serving the city of Washington, and was established in 1878 on the initiative of the late George C. Maynard. The Maynard records are in the possession of the Chesapeake & Potomac Telephone Company, which succeeded the old National Telephone Exchange.

It is noteworthy that the list contained only 126 subscribers with numbers. Telephone "No. 1" naturally went to the White House, listed alphabetically as "Executive Mansion." "No. 2" went to the Capitol, in the Senate corridor. But apparently the House of Representatives and the U. S. Supreme Court had to get along, at that time, without telephones of their own because "No. 3" was listed as a private subscriber—none other than the Associated Press headquarters. Two other government subscribers appeared to be the Department of Agriculture ("No. 105") and the Treasury ("No. 4"). The ranking but conservative Department of State waited until a little later before installing the newfangled contraption.

Several of the names appearing on this list are of families and firms still active in Washington social and business life.

Three Decades of Regulation Of Public Utilities

By the Honorable H. LESTER HOOKER*
Member, Virginia State Corporation Commission

Regulation has proven itself a dynamic force in our economic society. It cannot be strait jacketed into a formula. It must remain flexible, change as conditions change. It must always be fair to both ratepayers and regulated utilities alike, take a long view of its job, keep alert to trends. To achieve still greater progress in the next thirty years, it needs the full support of legislators as well as the utilities themselves. Successful regulation precludes Socialism.

My observations covering the past thirty years or so of public utility regulation are confined mostly to my experience as a member of the state corporation commission of Virginia. However, I shall review very briefly some of the earlier history to show generally the progress that has been made in regulation.

As early as 1844 two New England states set up railroad commissions, with jurisdiction limited to seeing that safe and adequate service was provided by the railroads. During the boom following the Civil War, an Illinois statute fixing the maximum charges on the storage of grain was adopted. But the demand for *rate regulation* by commissions probably had its beginning in the Granger agitation of the 1870's directed principally against the railroads. Numerous states adopted the Granger laws fixing maximum railroad charges.

By the time court proceedings, testing the constitutionality of these laws, had reached their final stages the depression of 1873 had set in. Many railroads were in receivership and these laws, in many states, had been repealed.

*For additional personal note, see "Pages with the Editors."

HOWEVER, the Supreme Court in 1877 held that the grain elevator business was clothed with a public interest and that regulation by a state under the police power was constitutional. The Granger laws were likewise upheld. Also, in 1886 the court upheld the validity of a Mississippi statute providing for a railroad commission with full regulatory powers. It was held, however, that the exercise of the right of the state to regulate must be reasonable and avoid a taking of private property for public use without just compensation.

In 1887 the Interstate Commerce Commission was established by Congress, but the commission did not originally have any rate-fixing powers at all. During the depression of 1893 William Jennings Bryan, in the case of Smyth *v.* Ames, sought a reduction in railroad rates based upon the then fair value of the railroads' property, primarily because property values had declined below original cost. The Supreme Court's decision in 1898 laid down for the first time the fair value doctrine in the determination of the reasonableness of rates.

Regulation Began in 1907

IT was after this Smyth *v.* Ames case that the full-powered commission regulation of utilities in the states, including full rate-fixing powers, began to come into being. It seems generally accepted that 1907 was the starting point. In that year Wisconsin, New York, and Georgia established commissions and invested them with jurisdiction over telephone, telegraph, gas, electric, and water companies. Other states soon followed.

In Virginia our commission was created by the Constitutional Convention of 1901-02. The original functions and jurisdictions, embodied in the Constitution of 1902, included assessment for taxation, both state and local, and regulation of rates, rules, and regulations of transportation and transmission companies only. Also included in the original functions were the issuance of certificates of incorporation to all corporations doing business in Virginia; granting certificates to foreign corporations to do business in Virginia; and the enforcement of the law in reference to domestication of foreign corporations.

UNDER the provisions of the 1902 Constitution, as well as the statutes, the commission has been clothed with legislative, judicial, and executive powers.

It was not until 1914 that the legislature passed laws requiring all public utilities (electric, gas, telephone, and water companies) to file their rates with the commission. Also, these laws gave the commission jurisdiction over the rates and services of such companies and power to fix such rates as shall be just and reasonable. Likewise, assessment for taxation, both state and local, of electric, gas, and water companies was added to the commission's jurisdiction.

Virginia Commission Has Broad Powers

AS time passed, the functions and jurisdictions of the commission have been greatly enlarged by the legislature, so that it is generally conceded that the Virginia commission is very unique in that the scope of its jurisdiction is broader than any like regulatory body in the United States.

In addition to public utilities, its jurisdiction extends to banks and other finan-

cial institutions, such as industrial loan companies, small loan companies, building and loan companies, and credit unions; to all insurance companies doing business in Virginia, both Virginia corporations and foreign corporations; to motor vehicle carriers, both passenger and freight; to aircraft transportation, including licensing of pilots, aircraft, and airfields; to issuance of securities under the "blue-sky" law; to regulation of rates of pilotage in Virginia waters; to "Blue Cross" and "Blue Shield" hospital and medical plans; to rationing of utility services in cases of emergency, such as strikes, accidents, want of coal, etc.; and a variety of less important matters.

Commission Regulation Effective

THE commission form of regulation seemed best adapted to meet the public need. Commissions could give their full attention to the job and their staffs would be technically equipped for the work. As their services would be available at all times it was believed they would be in a position to act promptly, which looked good, both from the public and utility viewpoints.

The first quarter of the twentieth century witnessed the period of the establishment of the state commissions. It was the period in which the young commissions struggled to work out their legal principles to come within the pattern of the fair value doctrine laid down in the Smyth *v.* Ames case. Also, it was a period of great physical growth of many of our utility companies.

Then came the period of growing pains on the eve of the great depression. The 1929 crash of the securities market was soon to reduce many holding companies to difficult financial positions and even to receiverships. The state commissions were still somewhat weak and understaffed, with more responsibilities thrust upon them than they were equipped to handle with top efficiency.

Early Commission Controversies

DURING this period, from the late 1920's into the early 1930's, some of the most active and controversial events of the past thirty years took place. They began to boil up in charges against monopoly and power trust, which had culminated in the Walsh resolution so bitterly debated in the U. S. Senate. It was a period of almost hysterical criticism against commission regulation. Charges were made in the press that utility regulation had broken down; that regulation had not worked as it was intended to work; that many of the old evils had continued; that new evils had developed; that

Reasons for Regulation

GENERALLY, commission regulation in this country came into being (1) because of the public evils of competition in the utility field; (2) because direct regulation by legislatures was unscientific and inadequate; (3) because local authorities were not equipped to deal with utilities on an even footing in regulatory matters; and (4) because general laws and contracts were too inflexible for reasonable regulation under varying conditions of operation.

the intricate questions of law and administration, which govern the cost to the citizen of his utility services, were in a desperate tangle, etc.

IT WAS in the early thirties that the Supreme Court first started its retreat away from the required adherence to the fair value doctrine. In Los Angeles Gas & E. Corp. v. California R. Commission (289 US 287, PUR1933C 229), the court said it did not sit as a board of review to pass on methods of regulatory boards in the absence of evidence that rates finally fixed were actually confiscatory. This case foreshadowed two more sweeping decisions in the following decade—Natural Gas Pipeline case in 1942, and Hope Natural Gas case in 1944.

The entrance of the federal government into the electric power field and the abandonment by federal courts of the fair value doctrine brought forth vigorous discussions, pro and con, throughout the country. Commissioners, legislators, educators, executives, and professional specialists joined with the politicians in threshing over the economic consequences of the fair value rule and the advantages, or lack of advantages, of the original cost basis.

Needless to say, it is an argument that has not been fully settled yet and is not likely to be settled in the immediate future of these inflationary days. However, I believe it can be recorded that this period of storm and controversy tested the strength and stability of commission regulation as an institution. It survived because after each storm there was an evaluation of arguments and the adoption of reforms as needed. Invariably such reforms had the ultimate effect of strengthening the commissions, both state and federal.

Some Interesting Developments

AMONG the federal acts to come out of this period were the Holding Company Act, the Federal Power Act, and the Federal Communications Act. The state commissions were generally strengthened by their respective legislatures with larger staffs, better appropriations, and more effective regulatory laws.

For instance, in Virginia the commission had in 1929 about sixty-five on its staff, as compared to about 240 today. Also, the legislature since 1929 has passed acts extending the jurisdiction of the commission as to *public utilities* to include (1) granting of licenses for hydroelectric developments, (2) issuance of securities of public utilities, (3) transactions with affiliated interests, (4) jurisdiction over REA electric and telephone co-operatives in same manner and to same extent as other utilities in Virginia, (5) acquisition or disposition of utility assets, (6) granting certificates of public convenience and necessity, (7) jurisdiction over sewerage companies, and (8) acting as agent for the governor in taking over and operating public utilities in case of threatened strikes.

WHAT has happened since this period in the thirties has far surpassed in significance and activity all that has gone before. Reproduction cost, as a measure of rate-making value, began to go into

eclipse. The Hope decision in 1944 freed the commissions of all but a remnant of constitutional restraint on their rate-making discretion. Adherence to original cost less depreciation became the predominant measure for rate making. Utility rates generally reached record low levels.

World War II brought the period of emergency restrictions on some operations and plant expansion. Rate cases dropped off under the economic effect of the general price fixing by the Office of Price Administration in the nonutility field. Then came the postwar inflation years still fresh in our memory and which are still with us. Unregulated commodity prices skyrocketed. So did the demands for utility services.

The defense effort of the Korean War complicated and eventually aggravated the continued surge of inflation. Petitions for utility rate increases began slowly in 1946 —first in the transit and telephone fields, then more rapidly as the natural gas companies felt the pinch of rising costs. Then more lately the electric and water companies found it necessary to seek more revenues through rate increases. Also, the utilities once more began to challenge the practicability of strict cost measurement in a steep inflationary era. Some state courts have agreed. The argument still rages not only as to rate base but also as to the allied sectors of depreciation accruals for both rate-making and tax deduction purposes.

LOOKING back over my past thirty years in the field of public utility regulation, I am convinced that it is most important to keep one theme constantly in mind; namely, it is necessary for regulatory commissions to take a balanced view looking toward stimulation of utility expansion and improvement of services rather than to prices and profits alone.

Under state regulation private industry has had a major part in the amazing expansion of public utilities during this period. Public utilities have gone to the public many times, in the postwar period alone, for the new money to finance such expansion. It was reported some months ago that the utility industry alone had raised nearly one-half of all the new capital raised publicly by corporations in this country in the postwar period. This has been an outstanding job and yet the almost overpowering demands of the American economy for utility services of all kinds still continue.

I DO not have national statistics showing the amazing growth and expansion in the public utility field over the past thirty years, but for Virginia I am listing the following examples for 1929 as compared with 1959: electric customers from 229,000 to 1,028,000, or 350 per cent increase; electric plant investment from $141 million to over $941 million, or 566 per cent increase; telephones in service from 186,000 to over 1,155,000, or 520 per cent increase; telephone plant investment from over $34 million to over $397 million, or 1,050 per cent increase; gas customers from 58,000 to over 268,000, or 360 per cent increase; gas plant investment (excluding pipeline companies) from over $11 million to over $85 million, or 635 per cent increase. Increases in sales of electricity and gas were more amazing than the above figures. I am sure that similar statistics covering the whole country would also show tremendous growth and expansion.

Obligations of Regulation

MOREOVER—and here is where regulation so easily can go astray—we must not lose sight of the fact that fulfillment of our obligation to the customers of utilities can best be achieved when the utility is in a consistently sound financial position. I stress this because the customers' interest is inescapably linked to the condition of the utility.

ONLY the financially strong utility company can secure the money to adequately meet such heavy demands for expansion. One of the most important responsibilities of a regulatory commission, it seems to me, is to realize that the commissions, as well as utilities, must have a long-range plan. We are woefully mistaken if we get the idea that regulation begins and ends by whittling down the rates a utility should be permitted to charge.

The commission that fails to permit a utility to continuously earn a reasonable and fair return is not, in my opinion, properly protecting those who use and depend on regulation to see that they receive efficient and dependable service. It has been my experience that poor service at any price is high. Also, I have found that the public generally is willing to pay reasonable rates if the service is satisfactory and dependable.

Success of Private Utility Ownership

THE impartial student of regulation is struck by the fact that only in this country are the public utilities so much under the control and operation of *private ownership*. This is a strong indication that state regulation has succeeded so satisfactorily in the public's mind that the continuation of privately owned and operated utilities under state regulation is in the best interests of the public.

Judged by actual performance, it must be admitted that the overall results of our system have served the public remarkably well. Of course this excellent record has not been due entirely to regulation. It is also the manifestation of the success of our American free enterprise system.

PRIVATE enterprise in our public utilities, under state regulation, has been so successful that this country has become the envy of the world. It behooves every citizen to take an intelligent look at what is going on and what appears to be contemplated in our national affairs. The rights of the states and the freedom of private enterprise are inescapably interwoven. The infringement of federal power over state authority inevitably weakens states' rights, adversely affecting private enterprise—the very industry upon which this country has grown great. The continued overlapping of the jurisdiction of the federal government over that of the several states has grown to an alarming extent, and, in my opinion, a national awakening is needed to restore the functions of the federal and state governments to their rightful sphere and relationship.

I am a firm believer in complete regulation of the utility industry, and I am just as strongly opposed to government ownership or operation, whether federal or state. Under the present system of regulation the public is fully protected as to the rates being charged. The history of the industry is the best evidence of the efficiency of the service under private management, publicly regulated. This method encourages to the fullest extent businesslike operation of utilities. As a learned jurist has said:

> It has been found better to let the natural laws of economy and society prevail and to leave ownership and operation of public utilities, under proper regulation, in the hands of men whose lives have been spent in the operation of these utilities, and whose education and long practice have made them expert in this highly specialized business.

Rate Cases, Then and Now

THERE is one other point to which attention may be called and that is the decided difference in the rate cases today as compared to those of some thirty years ago. Under the old processes the rate cases were usually long drawn out and very controversial, due to the fact that generally several methods of arriving at the present fair value were employed. Various values of the physical property were presented by engineers and accountants for the utilities, as well as for the public. The subject of most controversy was the reproduction cost estimates, including the various overheads, depreciation, and going concern value associated with such reproduction cost estimates. Also, there was always much controversy as to how much weight should be given to the reproduction cost estimates in the final determination of present fair value. Of course, such rate cases were generally very costly, which cost was ultimately paid for by the customers in their rates.

TODAY, our commission uses end-of-period original cost investment, less depreciation reserve, plus materials and supplies and a reasonable allowance for cash working capital, in fixing the rate base of the utility in rate cases. This method has eliminated much of the controversy and has simplified to a great extent the formal hearings. I am convinced that the public generally is less critical of, and much more satisfied with, this method

than was the case under the former method.

Also, I am definitely of the opinion that over all the utility industry has become much more stable under the present basis, especially here in Virginia. Much of the uncertainty, necessarily attached to the old method, has been eliminated and the formal hearings require much less time. The commission is able to render its decisions much sooner, both in cases filed by the utilities for increases and in cases filed by the public for investigations as to the reasonableness of utility rates.

What Have We Learned?

In conclusion, let us assume that regulation is here to stay as an institution for maintaining the private enterprise system in the utility business of this country; then what lasting lessons can be learned from the past thirty years? Here in brief is what I would say they seem to tell us:

1. That regulation is a living thing and it cannot be covered or embraced under any special or permanent formula. It must change as the economic system, in which it operates, changes. The good, sound, practical regulation of one decade may not necessarily be the good, sound, practical regulation of another decade.

2. That regulation needs continued support. It needs continued support from legislators in the form of sound, workable laws, and adequate appropriations. It needs continued support from the regulated utilities themselves, most of which now recognize that regulation is the bulwark between them and Socialism, because it is the only successful and workable alternative to Socialism. Fortunately, the day of opposition and obstruction to commission regulation by the utilities themselves has been gone for some time. Most of all, it needs continued support from the public and that, in turn, means that it must be understood by the public. Selling regulation to the public is a job that is never finished and never will be finished. It is a constant challenge to all those with the public interest at heart.

3. That regulation must be fair. It must be fair to the ratepayers and the regulated utilities alike. If one were to deliberately set about to destroy regulation, he could find no more effective method than to "load" the scales one way or the other. Abuse the ratepayer long enough and hard enough, and public sentiment will explode in a demand for direct government intervention, as in Europe or Latin America. Abuse the investor long enough and hard enough and you will accomplish the same end result by default. The investor will not invest. Service will falter and may even collapse. Public clamor will arise for the same old disillusioning but inevitable alternate—public ownership.

So much for the broad and general lessons which can be learned from these past thirty years. What about the future?

What's to Come?

If the past experience has taught us one thing, it is that the nation's economy is dynamic and never stands still. But the steady deterioration in the value of the dollar, with only rare and brief periods of increased purchasing power, shows us that inflation is more or less now a normal trend over the long pull. Therefore, it may well be that the courts and commissions will have to go on searching for new regulatory patterns or re-examining the old ones.

But whatever is necessary in the fu-

ture, this much we know from the past: Commission regulation can be adjusted to fit the needs of the new conditions as they arise. This is more than can be said for the less flexible alternatives of socialized services or fiat regulation which, judging by experience abroad, can let service deteriorate to a point intolerable by our American standards.

THEREFORE, it would appear that whatever its occasional shortcomings might be, commission regulation in this country has, I believe, earned and merited the support of the American people and America lawmakers. Hardly anyone today would seriously suggest getting rid of it, or trying something else to take over our public utility field as a whole. It is hard to imagine any circumstances in the future which will change this picture very much, unless the regulatory commissions themselves become involved in politics.

I THINK much progress has been made in the past thirty some years I have seen intimately. I have full confidence that more and more progress will come in the next thirty years, particularly if more cooperation can be attained among representatives of the regulatory authorities, the public, and the utilities.

Road to Chaos

". . . the government simultaneously owns, operates, subsidizes, purchases, promotes, and regulates various forms of air, ground, and water transportation. Naturally the interference is haphazard, extremely expensive, and often self-contradictory. . . .

"Now two major studies are being undertaken, and a number of officials think they should be aimed at a basic reappraisal of federal transportation policy. . . .

"Certainly any study, to be useful, must recognize that the key to a solution is a sharp limitation of government intervention both as a competitor and as a regulator. For one thing, many of the ostensible original reasons for meddling have disappeared or changed. The classic case is the railroads, still tightly and inequitably controlled as the monopoly they may once have been but have not been for many years.

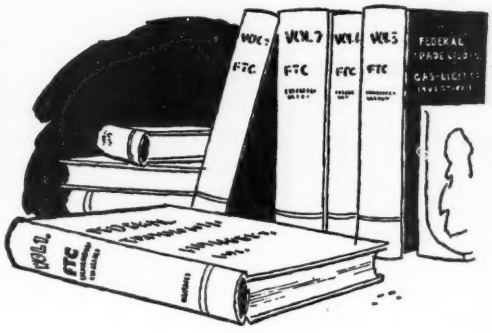
"Beyond that, the situation the government has created in transportation is proof that government, when it gets too big and tries to do too much, simply cannot manage. Government cannot operate businesses efficiently because it doesn't have to go by business rules. Government cannot regulate all businesses wisely or well because, among other reasons, it inevitably smothers everything in bureaucracy. There is still no good substitute for the market judgments of millions of private individuals.

"Transportation obviously is not the only demonstration of these truths, but it is one where the remedy is pretty clear: The government should start to get off this costly road to chaos."

—EDITORIAL STATEMENT,
The Wall Street Journal.

Improving the Regulatory Process

The Subcommittee on Legislative Oversight seeks to help federal regulatory agencies by changing or improving restrictive and vague legislation, relieving them of operational difficulties and improper pressures and influences. Even though commissions are adopting many rules and regulations to help themselves, it is still most essential that legislative control be exercised by Congress.



By the Honorable OREN HARRIS*
U. S. Representative from Arkansas

THE broad objectives of the House Subcommittee on Legislative Oversight are to determine the extent to which the statutes administered by the independent agencies are being carried out in accordance with the intent of Congress, the adequacy of the enabling statutes in view of changing conditions, and the means by which the agencies may be freed from disrupting pressures that may exert harmful influence on the faithful discharge of their duties.

Origin and Purpose of the Subcommittee

THE Legislative Reorganization Act of 1946, in § 136, entitled "Legislative Oversight by Standing Committees," provides that

> . . . each standing committee of the Senate and House of Representatives shall exercise continuous watchfulness of the execution by the administrative agencies concerned of any laws, the subject matter of which is within the jurisdiction of such committee . . .

Subsequently, this provision was incorporated in the House rules and, in February, 1957, when the House of Representatives was considering the resolution authorizing the "legislative oversight" activities of the Committee on Interstate and Foreign Commerce, Speaker Rayburn took the floor to comment:

> I trust that the gentlemen will set up a subcommittee . . . to go into the administration of each and every one of these laws to see whether or not the law, as we intended it, is being carried out or whether a great many of these laws are being repealed or revamped by those who administer them.

On March 6, 1957, the authorizing resolution having passed, as chairman of the House Committee on Interstate and Foreign Commerce, I appointed the Special Subcommittee on Legislative Oversight. Shortly thereafter, funds were requested

*Chairman, House Subcommittee on Legislative Oversight.

to enable the subcommittee to carry out its responsibilities. On April 11, 1957, the appropriation resolution passed and the subcommittee thereupon began organizing itself as a working body.[1]

IN order to achieve its broad purposes, it was necessary that the subcommittee undertake (1) to examine the basic legislation which might be so limited in scope as seriously to restrict the execution of the regulatory functions intended by Congress, or so broad as to enable the agency to operate in areas not intended by Congress, or so ambiguous as to create honest doubt regarding the specific limitations desired by Congress on the agencies' regulatory powers; (2) to study the actual functioning of each agency to see if it has been performing with acceptable efficiency and propriety and in a manner best serving the public interest; and (3) to free each agency from pressures and influences which might cast suspicion on the integrity of its decisions.

Basic Legislation

THE subcommittee in a policy statement issued April 18, 1957, listed among the subjects to be considered:

> (1) Review and analysis of the laws and amendments, and intent of the Congress when enacted;
>
> (2) Area of the field regulated by each law, changing circumstances and growth of the field since enactment;
>
> (3) Consideration of the legislative standards in the law to determine whether they can be drafted in more precise terms with the view of reducing administrative discretion . . .

We recommended in the January 3, 1959, report (House Report No. 2711), certain across-the-board changes applicable to several of the agencies. These involved primarily administrative functions, internal agency organization, and the isolation of the agencies from pressures from within and outside the government. Many of these recommendations have been embodied in HR 4800, which I introduced in the House of Representatives on February 19, 1959, and on which hearings will soon be held. In addition, our recommendations met a number of problems that are peculiar to the separate statutes governing the several agencies.

Functioning of the Agencies

IN its initial outline of policy the subcommittee indicated that it would approach this aspect of the problem by inquiring into the faithful execution of the law in the public interest and the extent to which statutory standards are being amended by rule or internal procedures to distort their original purposes. The subcommittee regarded as particularly requiring further legislative inquiry: (1) consistency of agency findings, absent amending legislation or court decisions, as to what constitutes the public interest; and (2) the reasons for frequent variation in the application of criteria from case to case. The subcommittee also studied and made a number of recommendations with respect to the internal or-

[1] The subcommittee's jurisdiction covers the independent regulatory commissions which are subject to the jurisdiction of the parent Committee on Interstate and Foreign Commerce. In the 85th Congress, H. Res. 99, as amended by H. Res. 197 and H. Res. 316, provides the areas within which the subcommittee may make investigations and studies. In the 86th Congress, H. Res. 56 contains similar provisions.

ganization and operational efficiency of the several agencies.

Independence of Agencies

A DIFFICULT and delicate problem exists in maintaining the freedom and independence of administrative agencies and their necessary access to information from the public, the regulated industry and others, and, at the same time, to inhibit improper ex parte approaches.

THERE is a legitimate need for proper means of communication between agencies and interested persons in the categories mentioned. Information of great value to the agencies is constantly provided them from such sources. Persons in these groups can submit to agencies' requests and inquiries which are entirely appropriate and which help to expedite the administrative process. Often, by proper ex parte conferences lengthy hearings can be avoided and public interest objectives can be reached more quickly and economically. However, unless caution is constantly observed, such activities can quickly expand to the point where they go beyond the limits of propriety. A great difficulty lies in drawing clearly and equitably the line of demarcation between proper and improper ex parte contacts.

This situation has required the subcommittee to give earnest consideration to the degree of identification of a regulatory agency with those whom it regulates and activities of government officials which constitute excessive pressure upon an agency. As a step toward keeping these contacts within proper bounds, the subcommittee has recommended across-the-board legislation requiring that

> Any communication, written or nonwritten, to or from a commissioner or commission employee, pertaining to any proceeding which by law or by commission rule or practice must be determined upon the record shall be included in the public record. A memorandum containing the substance of any such nonwritten communication shall be included in such record. (House Report No. 2711.)

ANOTHER fundamental problem involves the question, what effective measures can be put into practice which will have a reasonable prospect of winning the deserved confidence of the public in the impartiality, fairness, and integrity of the administration of the law?

We must be aware of the difficulty of establishing morality by legislation. But the admitted difficulty does not mean, in my view, that we cannot improve the administration of the law by means of a published code of ethics, setting standards of conduct for all who participate in administrative proceedings. The task of formulating such a code calls for the thoughtful consideration and creative ingenuity of members of the bar, especially those practicing before administrative agencies, and of commissioners and staff personnel of the agencies themselves.

Ex Parte Pressures

WHEN commissions have the power to grant licenses or franchises worth millions of dollars, it may be expected

that certain selfish interests will put on the pressure. If, to paraphrase the *Federalist,* the seekers after franchises were angels, there would be no need for ethical codes or even a criminal law in the administrative field. These pressures, generally exerted by ex parte communications between commission members and personnel of an agency on the one hand, and other interested persons or institutions on the other, constitute perhaps the greatest obstacle to achievement of the highest level of excellence in the administrative process. Unfortunately, the hearing record of the subcommittee is replete with instances of improper ex parte pressures upon commissioners.

While this type of activity has been said to exist in every branch of government, its most widespread and damaging influence is felt in connection with the exercise by the agencies of their adjudicatory and rule-making powers.

THE issue of ex parte communications in connection with rule-making proceedings of an administrative agency is not so clear-cut. The myriad varieties of administrative activity falling under the rubric of "rule making" spread over a wide spectrum. Some of the "rules" laid down are of such broad and general application that they apply with equal force to all members of a particular industry.

In other instances of rule making, while the proceedings may appear to be developing a policy of broad application, a realistic view of the situation will reveal that the practical result vitally affects one or a very few industry members. Certainly in the latter situation justice to the few so directly affected requires that they be apprized of all revelant matters considered by the commission in arriving at its decision. Should not the prohibition against ex parte communications be applied to all rule-making proceedings just as everyone agrees it should be applied to adjudicatory proceedings?

THE Supreme Court has recently, in the Sangamon Valley Television case, considered the matter of ex parte communications in a rule-making proceeding. The Federal Communications Commission, amending its table of area allocations of television channels, withdrew VHF Channel 2 from Springfield, Illinois, and assigned it to St. Louis, Missouri. One of the principals in the case subsequently testified before our subcommittee of many letters, telephone calls, and personal visits he made to commissioners to advocate the shift of Channel 2 to St. Louis. He also admitted making presents to some of the members of the commission at times when he was an interested party in the proceedings before the commission.

A Springfield, Illinois, applicant appealed the commission's decision and the court of appeals sustained the commission. The applicant petitioned the Supreme Court for a writ of certiorari. In his brief urging denial of the writ, the U. S. Solicitor General believed it proper "to call the court's attention to certain testimony given before the Subcommittee on Legislative Oversight of the House . . . subsequent to the decision by the court of appeals affirming the commission's order. The testimony indicates that after the rule-making proceeding here had been initiated . . . and while it was under consideration by the commission, representa-

Court Ethics Should Be Adhered to

ALL WILL agree, I believe, that the commissions, when exercising their responsibilities in adjudicatory proceedings, as for example when licenses or franchises are sought by contending applicants, should hold to the standards of propriety applicable to courts of law. As Professor Clark M. Byse of the Harvard Law School said in a statement made before our subcommittee, ". . . if the adjudicative form is utilized—that is, if Congress says that the decision shall be based on evidence adduced at a hearing—then I can see no reason why the ethical standards applicable to judges and to lawyers in court proceedings should not be applied to the administrative judge and the counsel who appears before him."

tives of the St. Louis operator . . . who was interested in having a new VHF channel assigned to St. Louis, and representatives of the petitioner and the other applicant for VHF Channel 2 in Springfield, made ex parte presentations with respect to merits of the rule-making proceedings to various members of the commission." The Supreme Court on October 20, 1958, granted the petition for certiorari, vacated the judgment of the court of appeals, and remanded the case on the basis of the above-mentioned representations in the Solicitor General's brief. (Sangamon Valley Television Corp. *v.* United States et al.)

THE Department of Justice, in its brief before the court of appeals, on remand, urged that the case be returned to the commission on the grounds that the ex parte approaches disclosed in the subcommittee hearings (1) violated the rules of the commission and (2) departed from "the cherished judicial tradition embodying the basic concepts of fair play." In support of its second ground the department urged that "even were the commission's procedure silent on this score, considerations of basic fairness would require a ban on ex parte pleas in this type of administrative proceeding, involving as it does an allocation of specific channels

among several communities, and a resolution of conflicting claims asserted by competing parties in relation to the use of valuable spectrum rights.

> "THE NEED **for fairness cannot turn on whether the label 'quasi-legislative' or 'quasi-judicial' be applied.** The outcome of this proceeding, we emphasize, affected particular interests in a concrete, substantial way . . . Where, as here, fundamental fairness requires the consideration and resolution of the subject matter to be conducted on the basis of full, open presentation by the interested parties, no proceeding should be sustained on appellate review where it appears that this basic requirement has not been scrupulously observed." (Emphasis supplied.)

The court of appeals for the District of Columbia circuit on May 8, 1959, accepted both grounds pressed by the Department of Justice, vacated the commission order and remanded the case to the commission for an evidential hearing to determine, among other things, the nature and source of all the ex parte pleas and other approaches involved in this case.[2] The court of appeals stated:

> Interested attempts "to influence any member of the commission . . . except by the recognized and public processes" go "to the very core of the commission's quasi-judicial powers . . ." Massachusets Bay Telecasters *v.* Federal Communications Commission, —US App DC—, 261 F2d 55, 66, 67. That case involved licensing, not rule making. Ordinarily allocation of TV channels among communities is a matter of rule making, governed by §4 of the Administrative Procedure Act, 5 USC §1003, rather than adjudication governed by § 5, 5 USC § 1004. The commission and the intervener contend that because the proceeding now on review was "rule making," ex parte attempts to influence the commissioners did not invalidate it. The Department of Justice disagrees. On behalf of the United States, the department urges that whatever the proceeding may be called it involved not only allocation of TV channels among communities but also resolution of conflicting private claims to a valuable privilege, and that basic fairness requires such a proceeding to be carried on in the open. We agree with the Department of Justice. Accordingly the private approaches to the members of the commission vitiated its action and the proceeding must be reopened.
>
> We agree also that the commission proceeding must be reopened for another reason. Agency action that substantially and prejudicially violates the agency's rules cannot stand. At the time of this proceeding the commission had no general regulations governing all rule making, but when it proposed an allocation of TV channels to particular communities it was its usual practice, followed in this instance, to prescribe a cut-off date before which "Any interested person . . . may file with the commission . . . written data, views, or arguments setting forth his comments" favoring or opposing the plan; a cut-off date for

[2] Sangamon Valley Television Corp. *v.* United States et al. (CA DC 1958) 103 US App DC 113, 225 F2d 191.

"comments or briefs in reply"; and that "No additional comments may be filed" without a request from the commission or a showing of good cause. By plain implication, this rule forbade submitting material to the commission's members after the time for filing it with the commission had gone by. The rule cannot be interpreted to permit parties to make off-the-record contentions that it forbids them to make on the record. (Footnotes omitted.)

Recent Activities of the Subcommittee

THE subcommittee recently concluded eight days of panel discussions participated in by representatives of six of the major regulatory commissions, practicing attorneys, the regulated industries, the Federal Trial Examiners' Conference, trade associations, and bar associations. The panel had under discussion the following four topics which should interest all persons engaged in the field of administrative regulation:

(1) Ex parte pressures and possible legislative or administrative remedies therefor;

(2) The rôle of hearing examiners;

(3) The functions of and division of responsibility among commissioners and their staffs; and

(4) The general efficiency of the agencies in disposing of their work.

The subcommittee, while interested in knowing the official views of each of the commissions, desired to have a free, objective, and fair presentation of the views of all the participants. Therefore, each panel member was urged to advance his personal views as distinguished from those of the agency or other group with which he was associated. The subcommittee has found that this type of hearing is of inestimable value in that it discloses in concrete form the informed views of those intimately associated with the day-to-day workings of the agencies.

Conclusion

WHILE the subcommittee's inquiries into the field of improper ex parte pressures have received the most widespread publicity, this should not be allowed to overshadow the more fundamental and important matters entrusted to it for investigation, study, and recommendation.

THE subcommittee's objective is to release the independent agencies from the Procrustean bed of unduly restrictive or vague basic legislation, operational difficulties, and improper pressures or influences from whatever source they might emanate. If, in the course of the performance of its duties, the subcommittee finds evidence of wrongdoing, it has the duty to make a record of the relevant facts. The vitality of our system of representative government depends upon the widespread confidence of the people in the fairness and integrity of the operations of their government.

How this public confidence can be strengthened and given renewed vigor has been of great concern to the members of this subcommittee in all their deliberations. Our subcommittee believes that continual improvement of administration should be

sought through careful selection of appointees by the Executive; statutes providing more clearly guide lines for the exercise of administrative discretion; more respect in word and deed for the true spirit of due process of law; and a constant search by all for opportunities to improve the administrative process. At the same time, we must emphasize the continuous watchfulness by Congress of the functioning of the regulatory commissions is a necessity.

THE commissions themselves are now promulgating rules and regulations ten times the volume of congressional enactments.

So long as the acts sketch only a general outline to be filled in by the agencies themselves and opportunity for judicial review is not available in some important respects, there must be no relaxation in the vigorous exercise of the constitutional power of legislative control and supervision.

Evils of Union Monopolism

"MONOPOLY Unionism breeds corruption and manifests itself in many ways contrary to the public interest, even as business monopoly did, earlier. These evidences occur [in the following ways]:

"1. When Monopoly Unionism restrains, rather than uplifts, the individual, and forces him into conformity.

"2. When it obtains from government legal, and quasi-legal, support in the form of special laws, and preferred handling by government agencies.

"3. When it obtains exclusive control of goods or services and denies the benefits of such goods or services to the other segments of the economy, except on conditions most favorable to its controllers or leaders.

"4. When it obtains the powers of coercion, by law or economic strength, enabling it to dictate at will to other segments of the economy.

"5. When it exacts tribute from other segments of the economy in the form of payments for services not rendered (featherbedding); tribute for favors conferred or violence withheld (racketeering); and tribute in the form of higher prices for all (inflation).

"6. When it turns upon its principal benefactor, government, and seeks to impose its power, philosophy, and ambitions upon it.

"7. When it places its own interests above the interests of groups equally important to the economy, or even above the interests of the entire society itself.

"If we can make Monopoly Unionism publicly visible for what it is: **a monopoly against the public interest,** then I honestly believe the general public will bring pressure on Congress to do the obvious thing and give the unions the help urged recently by Henry Ford, by applying to Monopoly Unionism the restrictions of the antitrust laws."

—EDWARD J. HANLEY,
President, Allegheny Ludlum Steel Corporation.

The Lawyer as an Executive of a Regulated Utility Business

By DONALD C. POWER*
Chairman of the board, General Telephone & Electronics Corporation

A lawyer may actually do a better job than some others in a utility executive post because of his training to be objective and to see all sides of a problem. However, the law-trained mind has to undergo a difficult transition in order to master the human and public relations concepts that deal with serving and winning the good will of customers. Moreover, a lawyer must learn to use his imagination to blaze new trails of public service for his company.

In congratulating PUBLIC UTILITIES FORTNIGHTLY on passing the thirtieth milestone, this writer is moved to feel somewhat time conscious himself. It seems hard to realize that the familiar "Blue Book of Regulation," as it is often called in the public utility business, has reached such maturity as well as authority. Yet it seems like only yesterday that this writer was pleased to have one of his earliest pieces of writing accepted for publication. As a matter of fact, it was back in 1931, and it was sold to PUBLIC UTILITIES FORTNIGHTLY.

That early effort, written at a time when the author was an assistant professor of business organization at Ohio State University, shows that he was in favor of regulation as a long-range stabilizing influence on the utility business. He thought it was not only necessary in the public interest,[1] but also good for the business itself. Well, here it is twenty-eight years

*For additional personal note, see "Pages with the Editors."

[1] "What Commission Regulation Is Doing to the Motorbus," by Donald C. Power, PUBLIC UTILITIES FORTNIGHTLY, Vol. VIII, No. 9, p. 542, October 29, 1931.

later, and this writer can honestly say that he feels the same way about it. Furthermore, it would appear that the main problem of commission regulation is much the same today, as it was then. This is the concluding statement of that 1931 article:

> As a whole, the public does not understand and consequently does not appreciate the necessity for regulation; as a result it is not in sympathy with much that the public utilities commission does . . . a situation which does not serve to strengthen the enforcement of the law.

Does that not sound familiar, today?

WELL, it still is a problem today—the problem of the need for creating a better public understanding of how regulation works, and how it protects the consumer and the investor alike. The difficulty here is that only a relatively few are in position to tell this story—professional specialists and specialized publications such as the FORTNIGHTLY. Clearly, the regulated companies themselves are not in a position to tell the story because what they have to say would not be considered a disinterested source. And the commissioners can hardly embark on a program of public education in this area even if they had funds for that purpose, which they do not. So, to the extent the story of regulating is being told, and generally understood so as to inspire public confidence, we must depend on such sources to see that the job is done.

As a former utility lawyer, as well as a former staff member of the Ohio Public Utilities Commission, this writer has worked on both sides of the regulatory fence. But for purposes of this article he has been called upon to say something about the rôle of a lawyer who has become an executive of a regulated utility. The implied question is whether or not this is a good thing. It is a good question, but not an easy one.

Some New Thinking Needed

LET me hasten to add that I am not going to paint a pretty picture of unmixed blessings where a lawyer has been given executive responsibility. On the contrary, one of the first things this writer had to find out, the hard way, was that the so-called legal mind must undergo quite a bit of reconditioning before it can be fitted into a groove of effective corporate control of a large-scale modern utility enterprise. But on the balance, some kind of case may be argued for the general proposition that a lawyer, with adequate understanding and experience concerning the business which he may be called upon to manage, may possess certain advantageous qualifications of background and intellectual discipline to do the job effectively.

We cannot, of course, minimize the difficulties of such a transition. An otherwise good lawyer, entirely untrained in the day-to-day competition of the business world, would surely become a big bungler in suddenly trying to be an executive of a regulated utility industry. Likewise, a successful utility executive would, if the positions were reversed, almost surely make a botch of trying a case in court.

It is a well-known fact, of course, that a legal background has always been very useful in qualifying for other vocations, particularly in public life. Eighteen of our thirty-four Presidents of the United States have been lawyers. Four out of the seven Presidents who came from

my native state of Ohio were lawyers. Yet, when we look at private industry we do not find anywhere near such a high frequency of corporation presidents with legal backgrounds. Out of 50 major nonutility industrial corporations now listed on the New York Stock Exchange, only five of them (or 10 per cent) are lawyer executives. By way of comparison, when we consider the *regulated* utility enterprises, the percentage is somewhat higher. Out of 33 major utility companies on the New York Exchange, seven have lawyer executives, which is better than 20 per cent.

Circumstances Affect Choice of Lawyer

Now to get back to the general theme, I believe that there are some circumstances which may make lawyer leadership desirable for a given corporation. There are other circumstances where it might be more desirable to turn the reins of management over to an executive with another type of professional background, or to an official who has made his career with the company's management.

To understand why changing circumstances may call for a different type of leadership, it is necessary to bear in mind that business corporations go through different stages of life just like individuals. In the law, we speak of corporations as being immortal, artificial personalities, purposely created to free a business enterprise from the risk and uncertainties which would result if it had to depend upon the life span of individual owners or partners.

But as a practical matter we also know that corporations do go through certain difficulties. They have problems getting started. They are likely to suffer certain growing pains, so to speak, during their periods of establishment and expansion. And after that there may develop special difficulties requiring adjustment or reorganization. Each of these phases may call for a different type of leadership to protect the welfare of the enterprise. This is natural evolution just as in the life of an individual. When we are born we need a baby specialist. When we are young, a child specialist. As we grow older, we need the services of other specialists, and so on. Of course, there can be no hard and fast rule about this.

WHEN IT gets right down to the selection of a top executive, the ability of the individual, independent of any professional background, must always be a prime factor. But, by and large, the directing boards of our large business corporations are also likely to consider the nature of the particularly pressing problems, in picking their executives. And it is no answer to say that a company can always hire a lawyer, or an engineer, or some other professional to take care of problems in those respective areas. Sure, professional specialists can always be hired. But the important question is whether the top leadership is sufficiently aware of the magnitude of the particular problem to give it the attention and stress it deserves.

Corporation Knowledge a Big Help

Now where does the lawyer, as such, fit into this picture? The law has traditionally been a most versatile profession. So, a broad answer might be that a good lawyer may fit into such special sit-

uations more easily than men with other backgrounds. One point in the lawyer's favor—we might say one point where he should have an inside track—is in his understanding of the nature of the modern business corporation.

Did you ever stop to think just how important the corporation is in our modern business economy? Did you ever consider that without the corporation the greater part of our business operations could never have come into being? I say that with all due respect to the marvelous advances of science and technology and all the contributions of the other professions. Yet, without the corporation all these other improvements could never be realized from the practical standpoint of getting a business started and keeping it going and growing.

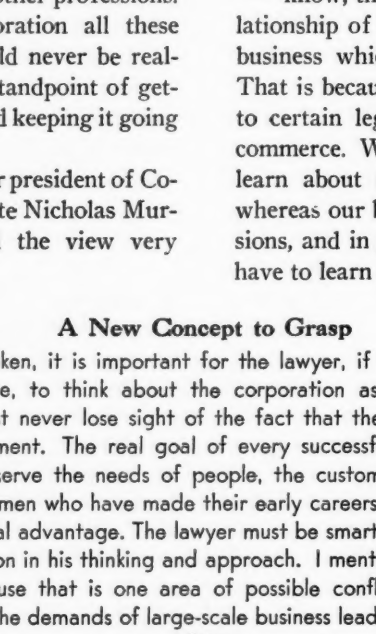
A distinguished former president of Columbia University, the late Nicholas Murray Butler, once stated the view very strongly (and I quote):

I weigh my words when I say that, in my judgment, the limited liability corporation is the greatest single discovery of modern times, whether you judge it by its social, by its ethical, by its industrial, or, in the long run—after we understand it and know how to use it—by its political effects. Even steam and electricity are far less important than the limited liability corporation, and they would be reduced to comparative impotence without it.

THE lawyer knows, or certainly should know, the nature of the structural relationship of this marvelous invention of business which we call the corporation. That is because it owes its very existence to certain legal concepts in the field of commerce. We lawyers are supposed to learn about such things in law school, whereas our brethren in the other professions, and in general business lines, often have to learn them by ear, so to speak.

A New Concept to Grasp

BY THE same token, it is important for the lawyer, if he would become a business executive, to think about the corporation as more than a legal concept. He must never lose sight of the fact that the corporation is only a form or instrument. The real goal of every successful business is a very human one—to serve the needs of people, the customers. In this respect, practical businessmen who have made their early careers in actual operations may have an initial advantage. The lawyer must be smart enough to make the necessary transition in his thinking and approach. I mention the human factor particularly because that is one area of possible conflict between a legal background and the demands of large-scale business leadership under modern conditions.



This emphasis on human values in business, or "public relations" (to give it the formal name), has been a definite feature of business operations in recent years. The idea that the customer is always right or that public good will may be more important than the protection of earnings, under certain circumstances, is something that is not taught in law school. The frequent tendency of the orthodox lawyer, when a controversy arises involving possible conflict of property interest with public opinion, is to sit tight, shut up, and say nothing.

Legal Advice *v.* Public Relations

LAWYERS know from their experience that when they have a client who gets into some kind of trouble, they almost automatically give him the preliminary advice to make no statement, or admission, until they have a chance to look over the situation and decide just how much or how little should be said. Now that may be perfectly sound advice for a client who has landed in jail, or who has had an auto accident, or who has been sued or threatened in some way. But it could be the *worst* kind of advice for a regulated utility business which depends for its success on day-to-day good will and understanding of its customers. Public opinion just will not wait until the lawyers check over the details of a business controversy involving customer relationships.

It is necessary, therefore, for the lawyer who would be a business executive to train himself to understand the importance of public relations and good publicity. But it can be done. It has been done very well by an increasing number of lawyer executives who made the successful transition which we have been discussing.

Imagination and Management Control

THAT brings up another somewhat allied area in which the lawyer may have some problem of adjustment if he is to bear some responsibility for business management. It is a rather nebulous thing to put into exact words. I would call it the need for bold thinking, for imagination in the exercise of management control. This is becoming more and more important in the swift-moving, fast-changing, increasingly competitive business world in which we live.

By nature and training the lawyer is a conservative when it comes to handling other people's property. We saw a good deal of that during the period of widespread receiverships which occurred during the great depression three decades ago.

Readers may recall what happened during that period when so many of our banks and railroads and other great enterprises went into the hands of receivers—usually lawyers. They took over control of these properties primarily from the standpoint of conserving assets to protect investors. Bold plans for new developments and expansion had to take a back seat.

We can understand why that happened in the atmosphere which prevailed in those days. I certainly would not pass any critical judgment on what had to be done thirty years ago under those very difficult circumstances. But it is a fair question whether some of the troubles which our older business corporations are experiencing today, in keeping up with the times, may not be traceable to the heritage of that period of so-called "caretaker leadership."

BUT THE able and imaginative lawyer, who really wants to make the transition from the traditional, cautious "caretaker" approach to an attitude of looking ahead, of seeking out new opportunities for public service, can do so. He can do it well. I go further. Once such a lawyer realizes the necessity for aggressive publicity, for promotion, for long-range planning, in conducting a business enterprise, he may be **better** able to fit into the new pattern than others with entirely different backgrounds. I say that because the good lawyer has trained himself to be objective, to see all sides of a problem, to put himself in the position of others. He can approach entirely novel situations without any of the ingrown inhibitions which sometimes affect career officials who have become long accustomed to doing things a certain way.

And it is a *rewarding* experience for a lawyer to meet such a challenge. It generates enthusiasm. He finds himself embracing his new task with a zeal born of his appreciation of the human values. I know in my own case I have found it necessary to guard against what might even be called "overcompensation," in the course of this intellectual switch over from the "caretaker" concept to the more exciting approach of making life pleasanter for more people, by increasing the products and services of the business organization with which I am associated. Of course, in the process, I have tried to make more and more money. But as you know those two things—increased profit and increased volume of operations—naturally go together, under our system, just like love and marriage. As the song writers say, you cannot have one without the other.

Key to It All—People

THE successful business executive can never afford to lose sight of the basic fact that he is dealing with people. When he loses sight of that he is in trouble. I wonder how many lawyers realize that the modern business corporation is one of the most democratic institutions on earth. Is that statement surprising? Well, I could go even further and say that the typical business corporation is a *double* form of democracy.

FIRST, there is the democratic process of the stockholders' vote. They are the real owners of the business. The executives and directors, after all, are only the hired help. They hold their jobs just as long as the stockholder majority says so. I know, it has been fashionable in certain academic circles to brush off the stockholders' vote as a sort of synthetic influence in a large corporation. We hear talk of so-called "self-perpetuating dynasties of management." Well, let me tell you that no wide-awake executive believes that sort of thing for a minute. He knows, all too well, that if a dividend is passed or reduced he will pretty soon hear from the stockholders and the influence will be anything but synthetic.

Secondly, there is the vote of the customer—what you might call the "cash register vote." Every time any member of the public spends a dime or dollar for any product or service which my company sells, I regard it as a vote of confidence. When that person prefers to spend his money with us, rather than in a million

other places where he could spend it, I consider that the "best evidence," as the lawyers say, that management is doing its job as far as that party is concerned. It is the acid test. Every time the cash register rings—the public has just voted for your business enterprise! What could be more democratic than that?

Sure, There's Competition!

Now, some readers may wonder at my use of the word "competition" in view of the fact that my company's operations are principally in the telephone field. All too many have fallen under the spell of that popular misconception that the utility business is a natural monopoly; and that, once established, all it has to do is send out monthly bills and rake in the money. That is simply not so.

It is true that a telephone company has an exclusive service area. That is simply to protect the public from wasteful duplication of area facilities, which would inevitably mean higher rates and poorer service. But the telephone company, just like any other utility company, is engaged in competition with *every* other kind of business in *every* other phase of its operations. It must compete with other business for men, money, and materials. It must also compete, as I have already mentioned, in the pursuit of the customer's almighty dollar.

But true competition, in order to be effective and in the public interest, must be an economic sort of competition, not mere competition for competition's sake. We do not have that problem so much in the utility field. But elsewhere it may be found that mere legal enforcement of competition will not do the public as much good as real competition between business organizations, which are able to offer the public a better product at a better price and in bigger value. Here is where the lawyer executive of the future may prove especially helpful—in adjusting and reorganizing existing business structures so as to bring about a more balanced form of competition. We are going through a period of such corporate adjustments right now and we shall probably see more of them.

Charting the Future

AND WHAT of the future? Well, the lawyer executive will surely have as much opportunity as any other kind of executive to think boldly and to act courageously in the conduct of his company's business. It is not enough, in these days of exploding population, to meet **present** needs. Industrial techniques are changing so radically all around us. It is necessary for the wide-awake executive to project his mind far, far out into the future, in order to conjure up what his customers will want and how well they can be served five, ten years, and even twenty years from now. This is very much of a problem in the utility business.

In my own experience, as a telephone system executive, I saw from the very outset a constant swing away from conventional wire communications to the newer radio and electronic arts. It has been necessary for our organization to reach far out in advance of present or prospective requirements, just to stay ahead of the parade five or ten years from now.

I WOULD like to end on a note of caution. No modern executive, be he lawyer or layman, has any bed of roses. He must expect, and he will get, his full share of setbacks and headaches. The critics of business, we have always with us. I can think of no better thought with which to conclude than a quotation from one of the most distinguished lawyers in the entire history of the American Bar. He was a lawyer who steered many a business client into safe harbor. This is what he had to say about critics of business (and I quote):

> There are persons who constantly clamor. They complain of oppression, speculation, and the pernicious influence of accumulated wealth. They cry out loudly against all banks and corporations, and all means by which small Capitalists become united in order to produce important and beneficial results. They carry on mad hostility against all established institutions. They would choke the fountain of industry and dry all streams.
>
> In a country of unbounded liberty, they clamor against oppression. In a country of perfect equality they would move heaven and earth against privilege and monopoly. In a country where property is more evenly divided than anywhere else, they rend the air shouting agrarian doctrines. In a country where wages of labor are high beyond parallel, they would teach the laborer he is but an oppressed slave.
>
> Sir, what can such men want? What do they mean? They can want nothing, sir, but to enjoy the fruits of other men's labor. They can mean nothing but disturbance and disorder, the diffusion of corrupt principles and the destruction of the moral sentiments and moral habits of society.

That quotation was from the speech made on the floor of the United States Senate *just a hundred and twenty-one years ago!* It was made by Daniel Webster. It is just as true today, as it ever was.

Utility Stocks–Guideposts to Progress

By HAROLD H. YOUNG*

Has regulation been good for the investor? It would appear so by the way utility stocks have appreciated over the past thirty years despite periods of adversity as well as unhappy legislation and regulatory decisions. And utility stocks today are equally sound values as we face the future, notwithstanding the trend towards higher interest rates for capital and the continuing threat of inflation.

THE invitation from the editors of PUBLIC UTILITIES FORTNIGHTLY to be retrospective about the past thirty years in the field of public utility investments opens up an assignment which is a pleasure rather than a chore. This is because the writer has been a staunch advocate of the merits of public utility stocks and the writing of this article presents an opportunity to reflect on how well these have served investors. It is fascinating to recall, however, that at just about any time in this 30-year span there has been a significant body of thinking among informed and intelligent investors as to why that particular moment was not good for buying utility stocks. The friends of these shares have almost always found it necessary to be on the defensive so far as a part of the investing community was concerned. Fortunately, passage of time has vindicated the stand of those of us who have felt that these shares have high merit.

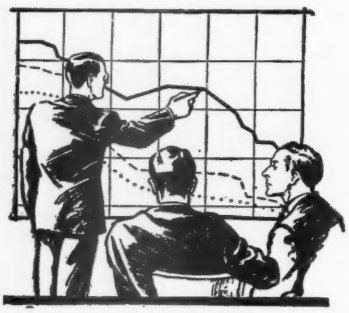
Soon after the 30-year period of which we are speaking had started, there was a collapse in the prices of all stocks which finally wound up in 1932 and prices started upward thereafter. This cataclysm undermined confidence in all stocks and the shares of the country's biggest and best enterprises were on sale in the bargain basement. Public utility stocks were among the issues most thoroughly exploited in the 1920's, so they shared fully in the decline.

Most of the public utility stocks avail-

*Partner, Eastman Dillon, Union Securities & Co, New York, New York. For additional personal note, see "Pages with the Editors."

able for investment at that time were holding company shares. There were only a modest number of operating company stocks on the market. The general market collapse in 1929 and years immediately following marked the culmination of the trend toward inclusion of utility operating companies in holding company systems. The general idea was pushed so hard that before the end of the era came promoters were combing the country for even the small and little-known utility companies which were still operating independently and were trying to put them together in holding company systems.

Of course, many abuses accompanied the formation and operation of these systems and gave rise to the passage by Congress in 1935 of the Public Utility Holding Company Act. This is often thought of as one of the many "New Deal" measures, but the chain of circumstances which led to the passage of this act began in February, 1927, in the administration of President Coolidge. At that time a resolution was introduced in the U. S. Senate, providing for the investigation of the practices of public utility holding companies. The Senate finally got around to adopting such a resolution in February, 1928, and it authorized the Federal Trade Commission to conduct the investigation. The material which was unearthed in the course of this investigation became the basis for the enactment of the final legislation in 1935.



Public Utility Holding Company Act

If there was any one development in the 30-year period which was viewed with more misgivings than any other, it is our opinion that the passage of the Public Utility Holding Company Act answers the description. The latter, as passed, called for physically integrated systems with sound capital structures. Companies unable to meet these tests could not continue in business. This gave rise to the use of the phrase "death sentence" as applying to the provisions of the act which put out of business the companies which did not meet the rigid requirements for continued existence. At the time it looked as if this might also be a "death sentence" for investors' hopes and aspirations for profitable investment in the utility field. A great deal of pressure was exerted to try to prevent passage of the act but this was unavailing.

Tracing the history of the administration of the act by the Securities and Exchange Commission would, in itself, be material for a book rather than an article. There were no precedents for this particular task and the commission was sailing an uncharted course. Obviously, much had to be worked out through trial and error. Principles and procedures had to be built from scratch with only the act, itself, and legislative history for guidance. Commission personnel had to be recruited. A great deal of litigation entered into the picture but the constitutionality of the act was sustained and, by and large, the commission was upheld in its administration.

MAKING a very long story short, it can be said that the fears that the act would be the vehicle for the wholesale destruction of values proved to be unfounded. On the contrary, out of the holding company breakups there came into investors' hands shares of some of our finest and most popular operating companies. The holding companies which have stayed in business as integrated systems have unquestioned strength and promise. The appreciation in value of shares, both of operating companies which were divested and integrated holding companies which stayed in business, has been conspicuous.

Some of the highest price-earnings ratios in today's market appertain to stocks not available to the investing public twenty years ago. The work of integration, called for by the act, is all but completed, with only a few loose ends remaining to be tied up. In retrospect, it can be said, with little fear of controversy, that investors are happy about the way the Public Utility Holding Company Act has worked out.

FPC Gets into Accounting

At around the same time the Holding Company Act was passed, the Federal Power Commission was given authority to prescribe systems of accounting which contemplated carrying the plant and property of utility companies under the commission's jurisdiction at original cost when first devoted to public service. This had an influence on the states having control over accounting of utility companies within their borders and many of them adopted similar standards. Here again arose fears of demolishing values. In some cases "chickens came home to roost" as deliberate write-ups of days gone by had to be reversed, with prompt and full write-offs.

A more reasonable stand was taken on premiums paid in good faith on bona fide transfers of property at amounts in excess of original cost. Amortization of these premiums over a period of time was permitted. Original cost accounting today is still controversial, but huge construction programs of recent years have made the issue of less importance as time has gone on. Almost all companies have put a high percentage of their plant in service in recent years.

It is not within the province of this article to pass on the merits of original cost accounting, but it can be said that original cost provides an excellent bench mark. It is easier to vary the rate of return, as occasion requires, and still adhere to original cost for the rate base than to try to establish in each rate proceeding both a rate base and a rate of return. The important point is that the adoption of the original cost concept did not react to the permanent detriment of public utility investors to the extent that many predicted.

Impact of World War II

Two decades ago war clouds were gathering. Stock prices plummeted when war actually broke out abroad and, later, when we went into the war, ourselves. One of the most serious dislocations, as far as the public utility companies were concerned, was the impact of the excess profits tax. Theoretically, companies under the jurisdiction of regulatory bodies, as almost all utility companies are, could not have excess profits. Yet, formulas

written into the law were such that many of these companies found themselves subject to the tax.

It is important to note that when the excess profits tax was revived in connection with the Korean conflict, the act was so written as to give specific consideration and relief to public utility companies. This development is of more passing interest in this discourse because it illustrates our thesis that, in the long run, injustices and inequities tend to be remedied. We feel the regulation of public utility companies is basically sound and is not intended to be repressive. Problems which arise are not always easily or quickly solved, but it has been our observation, over this period, that in the long run there has been inherent fairness.

During World War II industrial activity was at a high level. Since so very much of this tied in directly with the prosecution of the war effort, many felt that a sharp setback in business following the war was inevitable. Accordingly, the close of the war was another period in which some investors shied away from utility stocks, feeling that the utility companies could not avoid having substantial amounts of unused capacity on their hands. Once more the prophets of doom were confounded because the anticipated slump did not materialize in the severity or duration which had been expected. It was not long before the utility companies were thinking about expanding capacity to keep ahead of the demands made upon them, rather than being worried about any excess capacity.

Clouds Darken the Outlook

While the war was being prosecuted another cloud appeared on the horizon. This was a decision of the United States Supreme Court in a case involving the Hope Natural Gas Company. Without taking the time to go into the details, it may be said that some observers felt that this decision, as rendered, swept away many of the foundations of rate making as they had been relied upon over the years. It was further felt that under the terms of the new decision, regulatory authorities were given wide latitude which opened up possibilities of abuse. This view was by no means generally held at the time, but a great many people did have serious misgivings and again thought it was probably better to stay away from utility stocks.

At the present time—some fifteen years later—it would probably be hard to find people not working with this sort of thing all the time, who could give a clear exposition of what the Hope Natural Gas case really involved. Also after the close of the war, there was a period in which both institutional and private investors, more especially the former, had problems in finding outlets for funds at their disposal. This was partly attributable to the almost complete drying up of the mortgage market due to the cessation of home building during the war. Furthermore, the number of companies coming to the market with new securities to finance expansion was not normal. Accordingly, interest rates declined to some of the lowest figures in recent years and common stock dividend yields also were at low levels. Again, it was "not a good time to buy utility stocks." *In certain respects it may be said that the misgivings were more warranted at that time than at some others, because the prices attained by some stocks at that*

time were not reattained for a considerable period thereafter. However, the fact remains that in due course the prices of this period were again realized and then exceeded.

High Interest Rates

As if the proponent of public utility stock investing could never hope to win his point without a struggle, more recently there has been some feeling that utility stocks are under a cloud, not because of low interest rates, but because of high interest rates. In the recent past utility companies have had to pay more dearly for the money raised through senior financing than has been the case for a long time.

Higher Cost of Money and Earnings

THE question is raised as to whether the higher cost of money is not going to prejudice utility companies to the point that their earnings will be impaired. What should not be overlooked, in this connection, is that the rates now being paid on senior securities apply only to current emissions and these, in turn, represent only a small part of the companies' total financial structures. Accordingly, it would not seem that the burden on the utility companies because of this higher cost of money should cause immediate alarm. If interest rates continue high and utilities must adjust their cost of money to a higher plane, then the companies will have a good case for seeking a higher rate of return from the regulatory authorities. In fact, steps already have been taken along this line by some companies.

Inflation and Regulatory Difficulties

THIS brings us to the discussion of another cause for periodical misgivings among investors and that is the general inflationary trend. There is no question that utility companies are in the same position as the housewife and her market basket. Just about everything that goes into the cost of running a utility company is higher in price than it used to be. In-

vestors are aware that higher costs can be made the basis for increased rates through application to the commissions, but they point out the delays in getting relief and the reluctance sometimes evidenced by commissions in coming through with higher rates. That there very definitely is a "regulatory lag" cannot be disputed. Even the best-intentioned commission must have time to process an application which is presented to it for rate relief.

It would be fine if we could report that always the companies can hope to get what is coming to them and get it promptly. Such is not the case by any means. On the other hand, in the course of a year we read a great many commission decisions and we cannot help but be impressed with the thoughtful job that most of these bodies are trying to do. That there are often disappointments cannot be gainsaid, but at the same time there are often mistakes of judgment or errors of omission on the part of the utility companies in presenting their cases. In some instances they may have been on the greedy side.

THAT there are sore spots from time to time in the regulatory picture also cannot be denied. Any fair-minded person would concede that natural gas pipelines and their customer companies have been in a perennial state of uncertainty of late as an overburdened Federal Power Commission has fallen far behind in processing the cases before it. Occasionally, a commission will tend to be unreasonable or arbitrary in dealing with the companies under its jurisdiction. Over a period of time, however, a position of this sort proves to be untenable. If a commission is definitely tagged as unfair, investors will become aware of it and will steer clear of stocks of utility companies operating in such an atmosphere. Public opinion has a great deal of weight and in the long run the commission which has strayed off the reservation is likely to see the error of its ways and take steps to be more reasonable. Of course, the personnel of commissions changes from time to time and even within the same jurisdiction the commission may be more or less reasonable in different periods.

We cannot help feeling, however, that the average commissioner across the country is sensitive to the fact that he has a responsibility for maintaining the financial health of the companies under his control. Commissioners must be aware always of the need to have rates which are fair to the consuming public but they know that money cannot be raised to provide service if the rates are so low as not to give the companies a fair return. By and large, it is our contention that if an observer takes a long-range view rather than focusing on some individual decisions, regulation in this country has worked and is working well.

REFERRING again to the fears about inflation, the management of utility companies is very much to be congratulated on the achievements in offsetting the impact of higher costs. Efficiencies and economies have been forthcoming in very impressive fashion. Service is being rendered today by almost all companies with fewer employees in relation to volume of business than has been the case back along the line. Electric-generating plants turn out power with much less fuel per kilowatt-hour generated than anyone would have thought possible a few years ago. Automation in many branches of the busi-

ness is playing an important part. Furthermore, aggressive load-building programs increase the amount of business over which fixed costs are spread and this helps to meet the overall problem.

Some Utility Stocks History

TEN or fifteen years ago new utility company stocks were coming on to the market in such volume from holding company breakups that some observers felt that the whole utility equity market must necessarily be depressed. Some of these stocks came out through distributions directly to holding company security holders and, in other cases, sales were made by the holding companies to the investing public. Through either method the supply of stocks was increased because many of the holding company stockholders who received operating company shares as a result of distributions took steps to sell them rather promptly. Just as every poison has its antidote, this problem was met very happily. At around the same time, many investors, both private and institutional, who had traditionally been buyers primarily of bonds and preferred stocks, became important purchasers of common stocks and utility common stocks were among their favorites. This change in investor attitude was brought about, in part, by low rates of return available on senior securities.

THIS writer recalls very well that when he was a young man in the business thirty-five years ago, the going rate on bonds was around 5 per cent and on preferred stocks, around 7 per cent. He remembers also that in the late thirties utility mortgage bonds came out for the first time with coupon rates less than 4 per cent and yields of utility preferred stocks declined similarly. Investors to whom income was an important consideration had to readjust their budgets sharply or do something to improve their income.

It was around this time that the utility holding company breakups were producing a supply of fine utility operating company equities whose quality was unimpeachable because of the work done by the SEC in building up financial structures and otherwise strengthening the companies before the securities were released to the public. As a result, the supply of these new stocks was absorbed without difficulty. Furthermore, many investors found, to their pleasure, that these stocks were sources of significant capital appreciation as time went on and as the new shares became better seasoned. This gave them more inducement to put money into other stocks.

ANOTHER cause for misgivings has been the large amount of entirely new capital which utility companies have had to raise to meet never-ending construction programs. A few years ago it would have seemed almost unbelievable that utility companies would be spending annually the amounts that growth and expansion have required. Some observers have taken the attitude that so far as equity capital was concerned, such huge sums could not be raised without depressing the market and that therefore utility stocks should be avoided. Again, help appeared from what might have been unexpected sources to take care of the need. Many institutions which had not historically been buyers of common stocks entered the market.

For example, 1950 was the first year in which, under the law, trustees in the state of New York could buy common stocks for their beneficiaries. In 1951 the same state enacted a new law, permitting life insurance companies to buy common stock and in 1952 New York savings banks were permitted for the first time to buy equities. A number of other states also liberalized their laws for institutional investments.

This legislation opened up more buying power than would appear on the face because other types of buyers are often influenced by what is or is not legal for life insurance companies and savings banks. Pension funds have been buyers of stocks on a very impressive scale. Many new private investors have come on the scene, either as direct buyers of stocks or as indirect buyers through mutual funds which, incidentally, have grown enormously. Investors have been increasingly impressed with the fact that inflation dissipates the purchasing power of their savings and that one way in which inflation may be counteracted is to buy common stocks offering the opportunity of price appreciation over a period of time.

Government Ownership Shadow

GOVERNMENT ownership fears have always been a deterrent to some people as far as buying utility stocks is concerned. There is no question that the shadow of government ownership always hangs over the utility industry and cannot be ignored. It can be said, however, that much more effective work has been done in recent years in educating the voters generally and their elected representatives about the dangers and shortcomings of government ownership, and while there are always projects which are being promoted, there certainly does not seem to be, at this time, any serious danger of large-scale trends in this direction. In this connection it might be noted that the utility companies themselves have organized much more effectively to combat intelligently public power projects as they are proposed than was the case a few years back.

To summarize the discussion upon which we embarked, the point we want to stress is that whereas at any given time there may have been reasons why utility stocks might not have looked altogether attractive, the fact remains that at almost any point along the line an investor who purchased a diversified portfolio of well-selected utility stocks and held them has fared very well, indeed. The history, in most instances, has been one of improving earnings, improving dividends, and, in due course, higher prices. Such a generalization cannot always apply to a short term but, over a reasonable period of time, the record of these companies and their shares has been an impressive one. For this, we give credit to the fundamental soundness of the utility business itself, the high-type, able, and aggressive management which most companies enjoy, and the fairness of the regulatory bodies to which these companies are responsible.

My Interview with Edison

Recalling a half-hour with the wizard himself, and setting it against the complex technology of today. With a glimpse into the jungle of the unknown that Edison attacked with his native inventive genius. Curiously, Bell and Edison were hardly acquaintances.

By JAMES H. COLLINS*

In those days, interviewing Edison was a simple thing, and this interviewer likes to remember him as a simple person. From the days of Menlo Park, and the incandescent lamp, and phonograph, people had been coming to talk with him, and I doubt if he ever made a production of an interview.

The times were simpler, even when I talked with him. There were still no experts to stage interviews for publicity purposes, no TV press panels to ply him with reporters' questions—their way of getting a story, as they say. Even so, I feel that Edison's very simplicity as a person would have made up for the adroitness of some of these characters we see on press quizzes nowadays.

The times were simpler technologically. There were no great company laboratories widely spaced on land that had lately been under the plow, no platoons of scientists attacking the unknown on wide fronts.

I sometimes feel that if an apple tree had been left standing on company "lab" grounds today, and a Bell or GE physicist dozed off under it, and was hit on the nose by an apple, he would not be satisfied to discover gravity—he would settle for nothing short of antigravity.

But that was Then, and we are living in Now, and which is better or worse is a matter of one's own experience, and the interest in recalling a half-hour with Edison in our more sophisticated world today, seems to lie in being able to get more perspective on him, as a symbol of American invention, and as a person. That was more than forty years ago. Allow a reasonable amount of rambling.

To interview Edison, you started with a question, posed by an editor, on some current matter. What the question was, I have forgotten, but we can suppose that the editor wanted to ask Edison if he thought electricity had about reached its limits of usefulness.

The first electrical utility company had been started by Edison only a generation ago, but there were practically no home

*Professional writer, resident in Washington, D. C.

appliances yet, no radio, no "hi-fi." The phonograph was still mechanical. Half a dozen musicians made "classic" records close to the mike, perched according to their instruments, some on high stools, others on the floor. It really was a world of such simplicity that you cannot be expected to believe it ever existed.

Right Away Edison Walked in

You had this assignment, and called East Orange, and told Frank Merriwether what your editor wanted. He was Edison's Man Friday, and he was dubious. His boss had been unusually busy lately, he did not know just where he was, but if you wanted to take a chance, and come over, and wait around, maybe a minute or two could be squeezed in. But you must not take too much time. Merriwether put a much higher value on Edison's time than Edison did himself.

So, you took a chance, and went over to the unpretentious Edison plant, looking nothing like a corporation factory, no guard at the gate—not even anything like the General Electric plant at Schenectady at that time, where a guard drove Steinmetz away.

GE had bought a little electrical concern to get its electrical wizard, the hunchback Steinmetz, and when the wizard appeared at the GE gate the guard said, "Hey! you can't smoke in here." The little wizard said, "If I can't smoke, I can't work," and walked away, and it took a search and a special rule to get him back.

No receptionist at East Orange, no secretary, no big desk or office trappings. You were seated in a corner of the library to wait. All around were shelves up to the ceiling, piled with books and journals, as though laid down by somebody who would know where to pick them up again. No evidence of a filing system. A library for the use of an individual, for his own work. Like a man's den. With an unwritten "Keep Out!"

This may be an oversimplification, for Edison had some very able assistants from the beginning—one of them, Samuel Insull. Walt Disney's library of sound effects is on much the same principle, with kazoos, crashes, prat falls, and animal noises, neatly laid on shelves, and a sign, "Do Not Handle!"

But there was not time to browse around the famous Edison library, for almost immediately he came in. An elderly, thickset man in his short sleeves, looking like his pictures, evidently come from the shop. He sat down opposite his visitor, and smiled inquiringly.

And that was all the protocol.

The Leaky Edinburgh Line

One of my clearest recollections of Edison is his interest in my editor's question. In perspective, it is a key to his character as an inventor, as well as a person.

An interviewer is often doused with cold water. For he is given a topic, and told to get the opinions of some selected important person, and he is generally intrigued by the subject, because to him it is new. But his authority tells him that nothing remains to be said or written on that topic—it is silly.

Most of us have had this chilling reception to ideas presented to higher-ups. And the sad truth often is, that when the idea cools, it is seen to be old.

It was not necessary to sell the editor's

idea to Edison. His face lighted up. You would have thought that nobody had ever asked him about the future of electricity. It turned his mind to the beginnings of electricity, as he had lived them, and he told the story of his quadruplex telegraph demonstration to the British post-office officials.

EDISON was a telegrapher. That was his trade. His first inventions were telegraphic improvements, the stock ticker for which he got $40,000, and took it away from the bank in gold, and the quadruplex system that carried four messages simultaneously over a single circuit, with currents of different strengths.

The British authorities invited him to London, for a demonstration, and gave him a line to Edinburgh which, somebody whispered, was the leakiest circuit available. This Yankee notion of four messages over the same wire aroused apprehension in telegraphers—if it worked, what about jobs?

Edison's way of overcoming this handicap was to use enough current to get his messages through, and allow plenty for leakage. The American idea of "Damn the torpedoes!"

But where to get that much electricity?

More than a hundred years had passed since Franklin flew his kite, and much had been learned about the behavior of electricity, but there were still no dynamos. The only electrical industry was the dot-and-dash business.

Edison heard about a big experimental battery that had been built for Tyndall's scientific lectures at the Royal Institution. He was able to borrow that, and his demonstration proved his invention practical.

LOOKING back, that interview seems to have been a casual chat about ideas, rather than a question-and-answer session. Some of the ideas were mine. Edison turned the curiosity of an inventor's mind upon them, as though they were original.

Recently, Edison had spoken of the possibilities of communicating with spirits by an electrical device, to replace mediums, and trickery. I asked him about that. From the days of the societies for psychical research, gathering unexplained experiences from many sources, I had been interested in the subject, though never attending a séance. It is an area of hot controversy, from a scientific standpoint, but I have felt that it is another area of the unknown. Edison hesitated a moment, as if he had forgotten the thing, then said, "If the spirits are able to talk, we can make an instrument sensitive enough." He was not at all concerned with spiritualism. Here was a new application of electricity to be invented, apparently needed.

I realize today, as I did not then, that I was getting a glimpse into a great inven-

WE TALKED about the movies. I suggested that they needed sound and color. There I was in the house of the wizard, the father of movies as much as anybody. Putting in my helpful suggestions, as though talking with Joe Doakes about "What's new?"

"We are working on that!" Edison said, happily, as though I had come over to check up. An example of his simplicity—and mine.

tor's mind, and into the American genius for invention.

Edison's Technological World

At the time of their centenaries, Francis Welch compared Edison and Bell as founders of our present public services, and as "empiricists," who took all knowledge for their province, and perhaps the last of the individual American inventors.[1]

He took all ignorance for his province, might be another way of putting it. For his technological world is now almost unbelievable.

Edison's education is said to have consisted of only a few days in a grade school. But suppose he had gone to college, and got a degree in his early twenties? It could not have been an electrical engineering degree, because he himself would have to lay the foundations of that vocation. Engineers were civil or military. Specializing had not yet begun. If there had been degrees, there were no jobs.

It was about this time that the steelmakers laughed at Carnegie for hiring a German chemist to analyze ores, and who showed him that some of the cheaper ones gave the best iron content.

There was only steam for mechanical power. It had wrought wonders, but machine capacity was limited by belt drive; there was no power in the home, hardly any on the farm. The range and flexibility of electricity from a hearing aid to a cyclotron, was unimaginable.

There was one kind of steel, carbon, and few alloys, brass, bearing metal. And so no steel buildings as yet, no rustless knives.

Not all the elements had been found. Some were laboratory specimens, with no users, and little understood. Air was composed of oxygen and nitrogen—no helium for Macy's balloons, no neon for advertising signs.

Interchangeable parts had been developed, a Yankee notion that European machine builders considered a myth, but machine parts were still so far from precision that Sholes' typewriter and Burroughs' adding machine had to wait.

Our word "Victorian" expresses the smug satisfaction of that world with itself. It was considered that the French Revolution, steam, and the philosophers had put everything and everybody in place economically. War had been abolished. The universe was a finished system with maybe one mystery left: By one theory, a creator had put it together, ready to run, but what had given it the initial push to get it going?

It was about this time that a patent commissioner said something that has become an American classic, a yardstick for measuring our material progress. About everything had been invented, he said—the cotton gin, reaper, sewing machine, telegraph, rubber galoshes. The Patent Office might dwindle away for lack of new inventions—like the state dwindling away in a perfect Marxist world.

Not a Gadget in 1,000 Patents

It was such a technological jungle that Edison attacked with his machete of inventive genius.

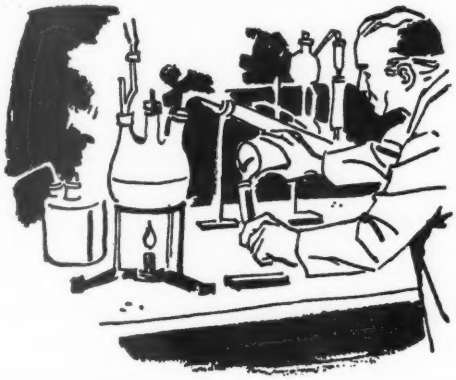
"We don't begin to know one-half of one per cent about anything!" was one of his common sayings—he uttered it about something or other in my interview. I re-

[1] "Bell and Edison, Centennial Twins of American Inventive Genius," by Francis X. Welch, *Telephony*, March 1, 1947.

MY INTERVIEW WITH EDISON

The Birth and Death of Ether

THERE WAS still a mystery about light. Sound traveled through the air, but what did light travel in? To balance the cosmic budget, scientists postulated the "ether," a gel that permeated all space. You had to use imagination to picture it, for it was rigid, and also flexible, and held everything together, and permeated everything. That it would stage television shows in the front parlor was not even thought of as imaginable. Finally, this ether was dropped out of physics, mainly because no scientist was able to come up with a bottleful. Leaving something that cannot yet be explained, but which works.



member that, in talking about the phonograph, he said he could understand how it reproduced the music of an orchestra.

"But how this," he added, pointing to his ear, "distinguishes all those instruments in the vibrations of a disc, I do not know."

AMERICAN inventive ability has often been wasted on gadgets, or has failed, as we say today, for lack of market research. But more of it has been directed to things that people needed. Whitney saw the need for something faster than black fingers to pick the seeds out of cotton, while on a visit to a Georgia plantation; Howe was an apprentice in a textile machinery factory, and saw that machinery was needed in the home, where so much sewing was done; McCormick's father had produced successful inventions, but failed with a reaper, and son took over . . .

Edison was of this line. His thousand patents covered mimeographs, electric pens, automatic devices, chemicals. There isn't any gadgetry in the list. Some successful projects were made unnecessary by advances in other fields, like magnetic ore separation. Others were absorbed in other inventions, like the carbon telephone transmitter, which contributed to the Bell system.

IN the 1870's, no market analysts were needed to show that people ought to have better light. It was hardly a hundred years back to candles, which had been supplemented by whale oil. Kerosene was supplementing whale oil. Rockefeller might

have been considered a competitor of Edison in lighting. There was gas, the best illuminant yet developed, but not widely available.

Edison set out to find a substance that would become incandescent under electricity, and last long enough to provide light at a reasonable cost. The arc lamp gave a sputtering, bluish light, good enough for outdoors and auditoriums, but Edison thought something better could be found, and set out to find it by a world-wide search for such a substance. He tried some five thousand materials, finally finding a satisfactory filament in a particular variety of bamboo.

This was an "as is" material. Modern analysis and synthesis were not developed so that the satisfactory element in the bamboo could be isolated and built up. A generation would pass before improved technology developed metallic filaments.

When his lamp was satisfactory Edison had to invent the dynamo to produce enough current, and ways of distributing and metering it—in a word, the electrical utility of today, stripped of its refinements.

THE phonograph was one invention that Edison did not see an immediate use for. Evidently he became interested in the vibrating disc's possibilities for recording speech, and worked at it as another field of the unknown. This, while he was inventing the complete modern electric utility industry. He said himself that he did not know what it was good for, but believed that people would find uses.

Interesting to reflect that his phonograph was entirely mechanical, while Bell was applying electricity to the vibrating disc to transmit speech. It was even turned with a crank—perhaps there were no electric motors then.

BUT his phonograph had immense publicity value. Popular interest in the "talking machine" was high, and Edison became known as the versatile wizard who could invent anything, and as a personality.

There grew up a mythology about him. At the time war over Cuba threatened, with a Spanish fleet bombarding New York, there was a short story about Edison rowing out, attaching a wire to the flagship, and setting the Admiral and his crew dancing on the deck. There was a later story about Edison's simplicity, how he had a safe full of presentation watches, given him by crowned heads, but always bought a dollar watch, broke off the stem, squirted oil into it, and put it in his pocket. One of the Ingersolls who developed the dollar watch told me that they had a good deal of trouble with oil-flooded watches, sent in with complaints.

AS A kid in Detroit, I got a ticket at the school gate that, with five cents, admitted me to see Edison's talking machine at Milligan's dime museum. There it was, with Jo-Jo the dog-faced boy, Fiji Jim and Annie, and the seven long-haired Sutherland sisters. Phil Milligan himself talked into it and played back his voice, squeakily. It recorded on tinfoil, on a cylinder. Permanent records would come later when Edison added the wax cylinder. It would be forty years before Mother Bell's bright boys in West street made it electronic, and still more years before "hi-fi."

Even to myself, this suggests a technological Cro-Magnon man being brought back—say, by a Russian biologist—to be amazed by our push-button present. But it gives the feeling of our country in Edison's youth.

"Yes—But Only an Inventor!"

FRANCIS WELCH called Edison an "empiricist," in contrast with the college-bred technicians at "soph" level who regard him as a primitive—belonging with Grandma Moses.

"Empiricist" is not a discreditable term, by the dictionary, meaning an investigator who experiments without much regard for theories or theorists.

That was Edison, and he was often called harder names by the sopohomores of his day. "Oh, Edison!" they would sniff. "Yes, I grant you a genius, but still only an old-fashioned inventor." They could hardly criticize his achievements, but did criticize the way he worked.

In our interview, Edison told me a story that visualized his feeling about college-bred scientists. I doubt if there was any resentment in his nature. He seemed to think that the college fellows were over-educated, not able to go into the technological jungle and live on it. This he felt because he tried them on jobs, and saw their limitations, and his story was along that line.

Edison had some tests of materials running, in a characteristic cut-and-try project of his particular kind. As I remember, these materials were to be burned on plates, and results measured.

He thought it would be an appropriate job for educated chemists, and hired two young ones, fresh from Germany, and put them to work. To his astonishment they made an elaborate ceremony of the work, doing two or three plates an hour. It seemed to him a very simple operation, but when he suggested that, so far as what he wanted to find out was concerned, the work could be done in a simpler way, and faster, his young Germans were shocked.

"This is the way we were taught to do it in Germany," they protested. "It must be right."

So, Edison hired a bright American boy, just in his teens, taught him a simple method, and set him at work in the same room, on piecework.

"Now, here you are, in Germany," he said to his young chemists. "You each do two plates an hour and earn one dollar. That boy is in America, he does a dozen plates or more and earns four or five dollars."

"They soon came over to America," Edison concluded.

Once, he had an odd-shaped laboratory vessel, and took it to a mathematician to have its capacity figured out. The man of the slide rule took elaborate measurements, and started his calculations. Edison filled the vessel with water and measured it, which was all he wanted to know about that.

This is the old conflict between individual ability and the research team. Today, it is often assumed that the individual, even the inventive genius, is doomed.

But isn't American inventive ability something in the atmosphere of our country? The lone inventor may be a genius or a gadgeteer, but he is one of a line extending back to Franklin. There is a popular affection for him, even if he starves to

Edison's Part in the Telephone

IN 1875 Edison had contrived, but never patented, a device that crudely transmitted speech. In 1877-78 he patented his carbon transmitter, in which compressed lampblack buttons gave variable resistance in the telephone circuit. This marked a real advance, bringing Bell's patented telephone into general use. Telephone engineers today frankly admit that Bell's original patented instrument would never have become a practical means of communication without Edison's carbon transmitter.

death, as a contributor to our advancing way of life.

Some way ought to be found to keep him—and undoubtedly will be.

I DO not recall any feeling that Edison was deaf. It seems to me, looking back, that I spoke loudly, and close up, but he was interested in what I asked him, watched my face, and perhaps read my lips. With all his inventiveness he evidently never paid any attention to that handicap, and perhaps counteracted it with personal adjustments. Francis Welch remembers seeing him with Merriwether at a meeting, when his Man Friday tapped out the proceedings in Morse on Edison's knee.

In comparing the two inventors, Welch observed a potential bond of sympathy that might have brought them together—Edison's lifelong deafness, and Bell's lifelong efforts to alleviate that affliction.

THEY had other things in common, being both of the same age, both pioneers in industries that have become so great, and each devoted to invention, putting it before the business interests that grew out of their work. Both spent their lives in the compact neighborhood of New York, Boston, and Washington, yet they were never anything more than casual acquaintances.

Their careers began practically in the same year, 1876, when Bell patented his electromagnetic telephone, and exhibited it at the Philadelphia centennial, and Edison began his Menlo Park experiments with electricity, the phonograph, and, among other things, the carbon telephone transmitter.

Bell's original telephone was, like the phonograph, mechanical in voice production. Its impulses were so feeble that Edison, testing it, said that hardly a word could be distinguished.

EDISON'S transmitter immediately brought conflict. Western Union had a profitable business. The infant telephone appeared to threaten it. Bell's Massachusetts company began to spread into other states. So, the telegraph company acquired Edison's patents, and there was war, until a truce was achieved by a settlement that might be compared to "Peace in our time." Both companies agreed to share the Edison patents; Western Union agreed to stay out of the telephone business, and Bell to stay out of the telegraph business. Bell also agreed to pay the telegraph company a 20 per cent royalty on telephone earnings until the Bell patents expired.

Welch gets a kick out of that deal, as a lawyer. The Western Union attorneys, he thinks, thought that the telephone business would never amount to much. They should have lived until the patents ran out and there was a real battle with the independent telephone industry that came out from underground.

So, while Bell and Edison might have been good friends, as Henry Ford and Edison were later in Edison's life, they never really knew each other. There was no enmity. Edison never questioned Bell's priority in the telephone field, and Bell heartily applauded Edison's demonstration of his telephone loud-speaker, at Saratoga Springs, in 1879.

They were just too busy.

MY half-hour with Edison suggests a story told by Dale Robertson, the TV actor, who plays "Jim Hardie" in "Tales of Wells Fargo."

Once he met Einstein.

"Know what impressed me most!" he says. "He listened very intently to me, as if I actually could say something of great interest to him."

So, simplicity must be a component of some genius.

"THE most difficult problem we have faced all through the postwar period has been the persistent rise in costs. We have had to pay higher prices for raw materials. Construction costs have risen steadily, and so too have our operating expenses, three-fifths of which are employment costs.

"[To meet this problem we have had to obtain increases in telephone rates. We have also done a great deal to improve our methods of operation and] this process of innovation and improvement is continuous and it is vital to the success of the business. . . .

"Of course, research and technical development have always been vital elements in our business and I don't imply that we think of them as purely anti-inflationary measures. They are more than that. However, I can't refrain from pointing out that if it were not for this technical progress, our costs today would be far higher and our need for rate increases far greater."

—FREDERICK R. KAPPEL,
President, American Telephone and Telegraph Company.

Bow-wow, Mister Meterman!

There's another side to the story of why the dog bites the man, or why the meterman ends up with a patch in the seat of his pants. Here is the inside story of canine psychology as interpreted by a veteran trainer and handler of dogs.

As told to BRUCE McALISTER*

A posthumous reprint, on frequent request, of an article first published in PUBLIC UTILITIES FORTNIGHTLY, Vol. XXXVII, No. 4, p. 213, February 14, 1946.

I'M just an average dog, Mister Meterman. I live with an average family in an average house, in an average American city. I'm not pedigreed. I'm not too smart, nor too dumb—for a dog. I'm not likely to be any too well trained. I have my off days, especially dark or stormy days.

But like any other average dog, I'm doing the best I know how, Mister Meterman. Please keep that in mind. You may be the best guy in your company's books; yet I'll bet you a ham bone the average family dog has just as much loyalty and devotion to his job as you have to yours.

I'm not just trying to start an argument, M. M.; but do think this over. It might give you a more tolerant view about the dog's side of the story. I've got my job to do. You've got yours. The smart thing for both of us would seem to be to avoid conflict and misunderstanding. Then we can both go about our business without bothering each other. Okay, M. M.?

I'll admit you've probably had some tough experiences if you've been a meterman or repairman, or telephone installation man very long. Chances are you've been nipped and clipped and barked at, to distraction.

Chances are you've wondered why, in tarnation, dogs act so ornery, why they don't get more sense. Worst of all, you might be growing into a dog hater. Don't let it do that to you, M. M. It's the worst thing that could possibly happen to you—turning into a dog hater. That's only a dog's viewpoint, of course.

All Dogs Are Different

THE main trouble, I think, in misunderstanding dogs is to generalize and assume universal rules—to assign a classified reaction or characteristic to the whole dog-gone race of dogs. You hear it in conversation every day, even from dog lovers; in fact, especially from dog lovers.

Dogs do this, dogs do that, they say—as if the whole genus of *canis familiaris*

*The late Mr. McAlister was a professional dog handler and breeder of Marlboro, Maryland.

(pardon my dog Latin) performed as precisely and as predictably as so many Ford automobiles or Golden Bantam corn seeds.

Truth of the matter is, M. M., dogs have *at least* as many varieties of character, disposition, and temperament as the entire living human race—probably more. Consider, for instance, that there are actually many more breeds of dogs than there are races of mankind. Dog dimensions, coloring, body covering, etc., vary more widely than man's. Weight alone may differ from a few ounces for the Mexican hairless to upwards of 200 pounds for the Irish wolfhound.

Some General Guideposts

A FEW general rules about dog behavior are fairly valid, as we shall see in this tale of a dog (no pun, please).

By and large, and very roughly, we may observe that the larger types of dogs are less inclined to be excitable or snappish—in the first instance, at least—than the smaller dogs. The reason for this is probably because the dog has for centuries tried so hard to imitate mankind. It is commonly observed among men that the small fellow is, on the balance, more likely to be the aggressive, plucky, "on edge" type, while the taller, bigger fellow is more likely to be reserved—the strong, silent type. Psychologists explain this to the effect that the smaller fellow, conscious of his diminutive stature, feels recurrently called upon to demonstrate that he will stand up for himself, while the big fellow just takes this for granted.

Anyhow, it's often that way with dogs. A tiny terrier as big as a nickel's worth of soap, and able to hide in a rat hole, will often begin yapping at nothing, and snapping at anything he sees; while the great big lazy mutt of shepherd strain will sleep straight through an air raid. Significantly, it is the noble St. Bernard, one of the largest of all dogs, which has the deserved reputation for kindly temperament and gentle manners. Newfoundlands, shepherds, airedales, and even the larger hounds and mastiffs (not likely as average house dogs) commonly have surprisingly agreeable dispositions, despite their spectacular size and ferocious appearance.

But this no safe rule, M. M. It's no rule at all. There's many a big chow or collie as mean as sin. In fact, it's just as well to throw out breeds, or mixtures, as any criterion for a dog's hostility to strangers. We must also observe in passing that the smaller dogs are not necessarily meaner in disposition. It would be fairer, perhaps, to say that they are often merely more excitable, more sensitive to strange noises and sounds, than their big cousins, who feel surer of themselves because of their very size.

Dog's Training and Environment Influential

ORDINARILY, a dog's training and general environment have more to do with his behavior than his ancestry. Country dogs, or those closely confined because of apartment living in very large cities, are likely to be more suspicious of strangers than dogs in small- or medium-sized communities which habitually run around loose. The obvious reason is that the small-town dog or "neighborhood pet" gets accustomed to meeting different people, while the open-country dog does not, and the big-city dog is always kept confined.

IT IS a surprising fact, however, that a large amount of mean disposition and nastiness among house dogs is due to **boredom.** That's right—boredom. The average dog likes to work, to help his master, to make himself useful. He is most happy when he can put in a hard, full day tending sheep, hunting, retrieving, or even pulling a milk cart. A dog kept occupied in this manner is not likely to be nervous, temperamental, or fretful. He sleeps and eats well and feels he is earning his keep. But, unfortunately, most dogs are kept around just for pets. The only job assigned to them is that of volunteer watchmen. Is it any wonder then that they try to make the most of it, work at it overtime, and often overdo it?

Expert Apple Polishers

HERE again, dog imitates man, his master. He tries to make the only job he has seem important—to make quite a fuss about it, to impress the "boss." "Apple polishing" is what humans call it. All dogs, M. M., are natural born "apple polishers."

Also, they, especially yard dogs, teach each other bad habits. One screwball dog, barking at every butterfly that passes, can soon get every dog in the block almost as scatterbrained as he is.

And so we have the typical case of the bored dog with nothing to do all day or night except to eat and sleep, chase an occasional cat, and watch the place, and nothing ever happens, it seems.

He gets like a fire-starved fireman after a while. Just at that point, M. M., you loom on the horizon with your frightening flashlight and hurried movements. Can't you just visualize poor Fido, welcoming this chance for excitement and taking after you, even though there may be some doubt in his mind that you are on the level? A little patience and training by the master would correct this. But you can't do anything about that, M. M. And neither can the dog.

ALL right then, let us take the situation as we find it. What can you do to protect yourself, your company, the customer, and his dog from unnecessary complaints? I have outlined here (after considerable research and consulting with quite a few wise old dogs of my acquaintance) ten suggestions for you to follow as outlined on page 58. Under each is a little explanatory detail. Here goes, M. M., and thanks in advance—on behalf of all dogs—for your kind consideration. It's been dog-gone swell of you to read even this far.

1. IF *the folks are home, have the dog confined.* That's the safest way, even though the dog appears friendly, and you might feel tempted to make his acquaintance. The customer is not going to resent it if you make the request tactfully. But the approach is quite important from the angle of your company's public relations. Remember, dog lovers are the most softhearted sentimentalists in the world. You can make a friend or an enemy for life by just a remark about the customer's dog.

For example, suppose you say in a surly fashion, "You've got to tie that mutt up, lady, or I'm not going down that cellar, see!" Chances are the lady will oblige reluctantly and really feel more disposed to sic the dog on you. (From the dog's

point of view I think that suggestion would be quite justified.)

On the other hand, suppose you say with a smile, "That certainly is a handsome dog, lady. I'm just wondering if you wouldn't mind calling him up while I'm down there reading the meter; sometimes the flashlight frightens them." Even though the praise were bestowed on a flea-bitten mongrel (in fact, especially if it were a flea-bitten mongrel), the owner would glow in your implied compliment to her possession and your solicitude for the dog's comfort. Try that line consistently and see how many firm friends you make for your company over a period of time. Rate arguments, politics, and other issues, notwithstanding, I say again: Dog lovers are notorious sentimentalists. Why not turn it to the company's advantage?

2. IF *his owner is not at home, ignore him,* PROVIDED *he ignores you.* The average house dog will generally let you know right away that he is at home. If you are a repair-or maintenance man whose business makes it necessary for you to go on the premises notwithstanding the owner's absence, don't take the barking too seriously. Barking is the sign of normal dog reaction. A silent dog is more likely to be sick or really vicious. If the dog makes no attempt to follow up by approaching you and merely satisfying his curiosity to the extent of approaching, just so far to see what you are about—let it go at that. Such a dog is not likely to harm you.

3. MAKE *friends only if he feels like it, and if you do too.* You can't fool a dog about such things. If you are really afraid of a dog's presence, he knows about it just as soon as you do yourself. You can't bluff it. Scientists have speculated that a person in fear exudes certain odors which the dog detects. Anyhow, he knows. If you try to bluff confidence by making an attempt towards friendliness under such circumstances, you're quite likely to get nipped. A dog wouldn't understand it.

On the other hand, if you are really a dog lover and the dog looks as if he might be friendly, and your duties require you to be around a little while, it might be pleasanter if you tried to make friends. But, to repeat, don't try it unless you feel like it. *Never* try it on a bitch with pups around.

4. LET *him make friends first; don't try petting him right off.* It is a fact that very many more dog lovers are bitten trying to pet strange dogs than folks who don't like dogs. They are the victims of self-confidence and perhaps a little self-conceit, springing from the impression that they can make friends with any dog. That is all wrong. Aside from the fact that dogs have an inherent sense of dignity which human beings fail to recognize, they also have a strong sense of loyalty to their owners which makes them bristle at any attempt of strangers to tickle their ears or indulge in any other marks of affection reserved for their masters. This is especially true of so-called "one-man" dogs, such as the famous "seeing-eye" variety which has been trained to protect a blind master and remain in his company almost constantly. A stranger trying to pet such a dog without at least the formality of an introduction is just as offensive to him as a strange man trying to take lib-

Which Dog Is Safe?

YOU ARE probably already asking the inevitable question: What types of dogs have nastier dispositions and which have the friendlier temperament? No satisfactory answer can be given to this question because all dogs bite, all of them can be provoked. Then, too, there are so many factors to be weighed—the dog's training and the surrounding circumstances, especially—that no rule could ever be formulated on the basis of dog breeding alone which did not have so many exceptions as to be meaningless. Besides, we must recognize that only a small fraction of average house dogs is of so-called pure breed, or anything like it.

erties with a respectable woman. That might seem like an extreme parallel; but it is the way the dog feels about it.

5. To *make friends, stand quietly, put out your hand, and let him smell it.* There is a reason for every action suggested here. Standing quietly allays the dog's fears. Facing him shows you are not afraid even though he already knows that. Putting out your hand shows you want to be friends and are not harboring any hostile intentions. Above all, never approach a dog from the rear. When he is making the first advance he is very skittish and doesn't want to feel fenced in. The open hand is the best approach.

6. If *he sniffs and walks off, or refuses to sniff your hand, let him alone.* This almost speaks for itself. The dog is simply telling you that you might be all right but he is keeping an eye on you; also, he isn't making friends that day. If you don't bother him further, chances are you won't have any more trouble under those circumstances.

7. Act *as quietly and confidently as if you had a right on the premises; avoid sudden or suspicious motions or noises.* This also speaks for itself. Most people don't know it, but a dog is actually a conservative. He likes the established routine, not strange or upsetting experiences (such as house cleaning), or anything revolutionary. If dogs could vote they would probably all go solidly Republican.

For this reason a dog is not likely to get upset if you go about your business as though you had every legitimate right to do so. Chances are he has been used to his master's friends and other people

calling at the house, so if you act respectable he is likely to treat you as such. It is only the unexpected—the departure from routine—which upsets him. If you drop a tool, for example, pick it up slowly, don't grab for it or he is apt to grab for you.

8. IF *the dog threatens to attack,* FACE HIM DOWN, *then back away slowly—never* TURN YOUR BACK OR RUN OFF. I know this goes contrary to human nature, which is to take it on the lam whenever you see a dog heading toward you with fire in his eye. But again we must remember that dog imitates man, and, therefore, is something of a bully. As sure as you turn your back and run, it is just as natural for him to take out after you with everything that he's got as it is for you to try and make yourself scarce. The result is a foot race, and unless you're in pretty good shape you're likely to find the dog is faster than you are. If, on the other hand, you stand perfectly still and face the dog, almost invariably he will stop and hesitate. This is what dog handlers call "facing down" a hostile dog. The only exception to this rule of procedure would be in the case of an obviously mad dog or a trained killer dog, and you are not likely to meet either—let's hope not, anyhow. The statistical chances are about the same in meeting a mad dog as meeting a venomous snake.

In "facing down" a dog you stand motionless for as much as a minute. Chances are good that the dog will stare at you and then retreat. If so, you have licked him psychologically and he is not likely to bother you, but don't follow up the advantage. Leave him alone.

If, however, the dog should "freeze" and continue to glare at you for more than a minute, you'd better start backing away slowly, always keeping your face to the dog.

IN the process of "facing down" a dog, try giving him commands, such as "go away" or "lie down," in a calm and authoritative voice. If, for obvious reasons, you can't manage a calm, authoritative voice at the moment, better not try it because an apprehensive squeak might make him even more upset. Chances are he won't obey you anyhow, but it's worth trying. The rule about never turning tail and running can, of course, be modified, if you see a dog charging from some distance and you are only a few feet away from a picket fence you can easily jump. But you'd better be a pretty good judge of distance. You will also find that dogs are pretty good respecters of other people's property. They seem to know the property line just as accurately as if they'd read the deed. Unless you beg them by turning tail and getting them in full pursuit, they will rarely ever chase you over the public highway.

9. IF *the dog attacks, defend yourself with a stick or other object, if possible (avoiding direct use of hands or feet); charging* TOWARD *the dog will get better results than retreating.* In the process of backing away, as noted above, you might keep your eye peeled for a stick and slowly reach for a tool or other object in your clothing. The reason for using an object preferably to defend yourself is because it is dog's nature (except, again, in the case of a really mad dog or a trained killer dog) to go for the moving member of your body. If you try to push him away with your arm, your arm will

get nicked. If you try to kick him, your calf will get it. And, of course, if, despite the above advice, you yield to the temptation of turning around and running, it is the old story of the seat of your pants, which is the most accessible target. If you use a stick, you'll distract the dog and he might even take out his bites on the stick itself, because—aside from the possibility of injuring the dog—dogs usually respond to disciplinary blows about their body, while a blow in the face might enrage him further. A well-aimed blow at the flank will often slow up the toughest, meanest animal, if not put him out of action. Of course, an inverted chair, ladder, or other pronged object held off, "lion-tamer fashion," is an excellent shield. But in this spot you will not often get the chance to pick your own props.

THERE are no hard and fast rules for determining just when a dog is going to attack. It is often said that a dog will lower his head before bringing up for an assault. It is also commonly said that a dog will lay his ears back before getting down to business. Long-tailed dogs frequently lower the tail before making the lunge. There is some element of truth in these observations, but the exceptions are so frequent they are not safe. About the only safe generality is that nobody was ever attacked by a dog while the dog was sitting down. Even the wagging tail is no infallible criterion of a dog's friendliness. I have seen a Dalmatian go into bitterest action while wagging his tail and with perked ears as if he were greeting a long, lost friend.

10. IN *case of any dog bite fracturing the skin,* ALWAYS *notify your company or local police and follow instructions.* Most utility companies have established procedure for taking care of the case from then on. Many local authorities also require reports which the company will probably take care of. But if it is a small company or one which, for some reason or other, does not have rules, the bitten party should report his injury

1. If the folks are home, have the dog confined.
2. If his owner is not at home, ignore him, **provided** he ignores you.
3. Make friends only if he feels like it, and if you do too.
4. Let him make friends first; don't try petting him right off.
5. To make friends, stand quietly, put out your hand, and let him smell it.
6. If he sniffs and walks off, or refuses to sniff your hand, let him alone.
7. Act as quietly and confidently as if you had a right on the premises; avoid sudden or suspicious motions or noises.
8. If the dog threatens to attack, **face him down,** then back away slowly—never **turn your back or run off.**
9. If the dog attacks, defend yourself with a stick or other object, if possible (avoiding direct use of hands or feet); charging **toward** the dog will get better results than retreating.
10. In case of any dog bite fracturing the skin, **always** notify your company or local police and follow instructions.

to the police authorities on his own initiative. They will then probably send an observer to examine the dog on the possibility of rabies. Nine hundred and ninety-nine times out of 1,000 there will be no rabies for the simple reason that confined house dogs usually do not contract the infection, which is more prevalent among running dogs. A trained observer can usually tell at a glance within a day or so whether the dog is really mad or simply provoked. In case of any doubt, however, the authorities will take the dog into custody for closer observation. If it should develop that the dog is mad or there is even some suspicion that he might be—it is necessary to start immediately with antirabies injections. The authorities will take care of destroying the dog under such circumstances. In this respect, it is important to keep in mind that rabies is 100 per cent fatal in human beings if the infection is permitted to reach a truly virulent state before preventative measures are undertaken.

ONE last word about unnecessary destruction of dogs. In some communities, local laws or regulations permit the destruction of dogs which have bitten people, even though the dog is in good health.

This poses a problem of public relations which any smart utility company will recognize at once. Not long ago one of the large independent telephone companies in the South was saved from making a terrible blunder through the alert action of one of its officials in the case of a repairman who had been bitten by a seeing-eye dog. After all, the dog was only doing what she had been trained all her life to do—protect her blind ward. If the company or its employee had actively pressed for the destruction of such a dog, the resulting publicity might have caused widespread public reaction. Fortunately, company officials were shrewd enough to turn the situation to their advantage by taking active steps to see that the dog was returned to its owner unharmed. In other words—to paraphrase the old gag about the piano player in the old Wild West saloon—don't shoot the house dog unnecessarily. Remember he's doing the best that he can.

Labor and the Utilities

"THE government, by special legislation, has given labor unions power and privilege not granted by law to other groups. The avowed purpose was to put labor unions on an equal footing with big corporations, to establish collective bargaining—rather than strife and oppression—as a part of the American system.

"The effort was overly successful. Unions have assumed the stature of monopolies. They are not the only monopolies. Public utilities, for instance, by their nature usually are monopolies—but because of this they are subject to special controls."

—EDITORIAL STATEMENT,
The Washington (D. C.) Daily News.

Thirty Years Agrowing ...

By FRANCIS X. WELCH*

Some recollections and commentary on the high lights in the development of commission regulation as it has been reflected in the pages of PUBLIC UTILITIES FORTNIGHTLY since it began publication back in 1929.

THE first issue of PUBLIC UTILITIES FORTNIGHTLY, in its familiar blue jacket and characteristic format, was published on January 26, 1929. I was then the most junior member of the editorial staff of *Public Utilities Reports,* from which the editorial staff and business organization of the new publication had been created. I had joined up as a legal editor in the Rochester, New York, office of the *Reports,* only eighteen months before the launching date.

But because I was there during the establishment, and had at least a small part in it, I would like, in this thirtieth anniversary issue, to tell the story of how the FORTNIGHTLY got started, and what was happening at that time and since.

There were others who had more important parts to play, who are still with us. There was the editor of *Public Utilities Reports,* who took over as editor-in-chief and stayed at the helm for many years, Henry C. Spurr, now living in retirement at his home in Rochester. There was Ellsworth Nichols, now editor-in-chief, also of Rochester. There was the general manager of the publication at that time, and still president of the publishing company, A. S. Hills of Washington, D. C. Another leading founding spirit was our first editorial director who had so much to do with the original format—the late Colonel Kendall Banning, who returned to active duty to become a Brigadier General during World War II before his death in 1944.

THE idea of the FORTNIGHTLY grew directly out of the exciting times for utilities in which it was born. *Public Utilities Reports* had been on the scene since 1915—the recognized national reporting system for the decisions of the regulatory commissions. But it was a period of rapid consolidation and merger. Small utility company operators were disappearing in the wake of a growing number of holding

*Editor, PUBLIC UTILITIES FORTNIGHTLY.

company combinations—and, by the same token, so were quite a few subscribers to the original *Reports*. It was also a period of unrest. Not only the growing holding companies but commission regulation itself was under increasing attack.

Aside from that, the complexities of regulation were transcending the boundaries of the purely legal profession. Regulation was no longer just another specialty of law practice. It was accounting. It was engineering. It was economics. And there were increasing political overtones. Hence, the decision of the original publishers to establish a magazine that would appeal to broader interests in the regulatory field than just the publication of rulings. This magazine was founded on the premise the commission regulation of public utilities was here to stay, and that an open forum for the discussion of all phases of regulation and allied topics would fill a long-felt need and be a forward step.

There were still in that year of 1929, those who did not believe in commission regulation, who thought it had failed. Thus, PUBLIC UTILITIES FORTNIGHTLY was born, so to speak, in a ready-made field of controversy. This controversy over commission regulation has largely subsided. The controversy today takes a different course.

DURING the past two years of its activities, the House Subcommittee on Legislative Oversight has brought forth disclosures of difficulties and occasional shortcomings in the operation of our federal regulatory commissions. Yet, it is worth noting that despite all the criticisms of procedure or so-called irregularities, no serious suggestion has been made from any responsible source that any of these commissions should be done away with, or their jurisdiction and powers substantially contracted or abridged.

On the contrary, a series of bills now pending in the 86th Congress, stemming from the investigation of the House subcommittee, generally propose a strengthening and broadening of the powers of these regulatory tribunals, and various methods for improvement of their procedure and operations. True, some of these measures would go about this in entirely different ways. One would set up a virtual specialized federal court. Another would spell out the duties and responsibilities of commissioners, practitioners, and others who have business with the commissions or have some interest in their work.

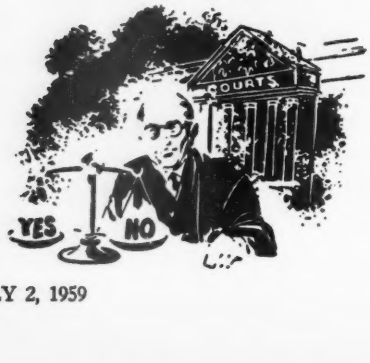
But the point to be made here—without attempting to analyze or compare those different bills—is that the general approach is a corrective one. They are generally designed to make commission regulation work better. The need for justification of these federal commissions is taken for granted.

It would be gratuitous, of course, at this late date to suggest that commission regulation has come of age or is here to stay. But it is a fact that such general acceptance of commission regulation as a necessary part of our system of administrative government (state or federal) has not always prevailed. As already stated, commission regulation has been attacked before, much more critically.

IT was January 21, 1929, three days before the first issue of PUBLIC UTILITIES FORTNIGHTLY, as a magazine of gen-

eral circulation, that the old *New York World* published an editorial entitled "The Breakdown of the Public Service Commissions." This editorial stated as follows:

> The high hopes with which the existing system of public utility regulation was inaugurated in this state have not been fulfilled. It is a fact beyond dispute that in certain important respects this system has broken down. . . .
>
> The new system was intended to end the existing evils. Its purpose was to put the utilities under such positive commission control as to assure them a fair return and at the same time assure the public of reasonable rates, adequate service, efficient operation, and proper financial management. In large measure these hopes have failed. . . .
>
> The public has come to realize that its expectations of twenty years ago have not been fulfilled; that regulation has not worked as it was intended to work; that many of the old evils have continued; that new ones have developed; and that the intricate questions of law and administration which govern the cost to the citizen of light, fuel, power, local transportation, and telephone communication are in a desperate tangle.



> There is widespread recognition of the fact that the present system no longer protects the public's interests adequately. . . .
>
> What is needed is no mere tinkering with the existing law but a comprehensive investigation to discover exactly how regulation has worked in the state of New York, what difficulties have been encountered, and by what means the present system can be reconstructed to serve effectively the purposes for which it was originally established. With this aim in view we believe that the legislature should provide for a special Public Service Investigating Commission to make a thorough survey. . . .
>
> We face a fact and not a theory. The law of 1907 has broken down.

With regret for the passing of a fine old newspaper, it might be noted that since that editorial the old *New York World* has disappeared into the syndicated bosom of the Scripps-Howard system, while the state commissions are still going strong—as already observed. Of course, some of the charges complained of in the old *World* editorial came on to be heard at length by investigating tribunals in Albany, as well as in Washington or elsewhere. Reforms were bitterly debated and a good many were placed on the statute books. But, note well, they invariably had the effect of *strengthening* the state commission and the federal commissions.

Public Utilities Fortnightly arrived on the scene in time to mirror the more exciting exchanges. Among those whose discussions were found in contributed articles in past issues, we note such

names of bygone personalities as the late U. S. Senator Norris (Republican, Nebraska), father of the TVA; the late U. S. Senator Couzens (Republican, Michigan), father of the FPC; the then Democratic Senator from Alabama, Hugo Black —now a member of the U. S. Supreme Court; and an article by the late, then governor of New York, Franklin D. Roosevelt, outlining a live-and-let-live policy in the controversial field of public ownership of public utilities by local option. During these early thirties the U. S. Supreme Court had already started its retreat from the fair value doctrine laid down in Smyth *v.* Ames, decided in 1898.

We cannot say even now who is right and who is wrong about many of these questions and detailed situations. We only know that in the give-and-take of commission regulation our utility services have grown bigger and better and have come within the reach of far more people —common people—than anywhere else on the face of the globe.

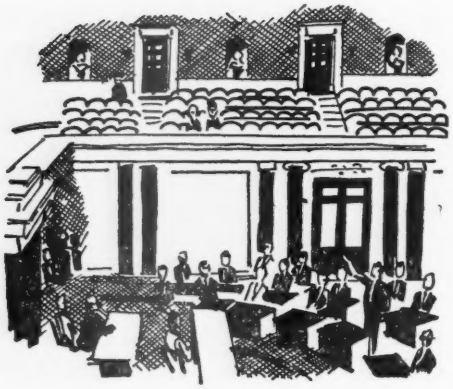
Yes, commission regulation has been attacked before and doubtless it will be criticized and reappraised again and again —years from now, even after the present House Subcommittee on Legislative Oversight has concluded its work, and any consequent legislation has been written on the statute books.

THIS is only to be expected as a healthy sign of evolution of any expanding or progressive institution. The trends of commission decisions change gradually but constantly, just as (and in most instances because of) the decisions of the U. S. Supreme Court. Any realistic observer knows that the present highest court under Chief Justice Warren, and especially since the advent of Justices Black, Douglas, Frankfurter, and others, decides such cases quite differently from the court headed by the late Chief Justice Hughes, when Justices Butler, Sanford, Sutherland, and Van Devanter were writing majority opinions.

We might carry this parallel a step further. Remember the hue and cry which broke out in 1937, when the late President Roosevelt asked Congress to enact the so-called "court packing" bill (to enlarge the membership of the court). There were charges that Roosevelt was seeking to destroy the court by diluting its authority because of his impatience with the way the "nine old men" were deciding cases. The President suffered his first major defeat from a Congress heavily dominated by his own party. But after that time changed what impulsive legislation could not change.

Today, we hear again widespread criticism of the way the highest court is deciding cases. There are a number of bills in Congress to change the result of various decisions. Some may even pass. The chief justices of two-thirds of the state supreme courts and the House of Delegates of the American Bar Association have voiced concern over the trend of some of the court's decisions. But no one—not even the most rabid segregant—has suggested that the court be abolished.

SO it is with commission regulation. The criticisms we hear today are mild indeed compared to the thundering and lightning in the early thirties. Today, the critics are concerned mainly with ethical



procedure. When the FORTNIGHTLY arrived on the scene, the big argument was whether the whole game was worth the candle. Perhaps one of the very best reasons for its present general acceptance has been the opportunity it provides for continuous correction of past mistakes and for constant adjustments and revisions to offset changes in economic conditions from time to time.

I would like to believe that in the thirty years of steady publication of these developments, PUBLIC UTILITIES FORTNIGHTLY has played its part in this process of learning by better understanding. Certainly fair and full discussion as an aid to better understanding has had ample sway through the years in the pages of the FORTNIGHTLY. It has ranged from calm and detached analysis to vigorous charges and countercharges. But the net result over the long pull has been a thoughtful, many-sided presentation of virtually every phase of regulation, controversial or otherwise.

Before 1929, the regulation of public utilities had gone through the *legislative* phase of the late nineteenth century, when the state legislatures tried their hands (and failed) at direct regulation of rates and services by statutory law. Then came the judicial phase of the first three decades of the twentieth century, when the courts —notably the U. S. Supreme Court—supervised the work of the commission almost on a case-by-case basis, laying down standards and principles governing such concepts as confiscation, reasonableness, discrimination, etc.

SUCH was the stage upon which PUBLIC UTILITIES FORTNIGHTLY emerged in 1929. What has happened since then surpassed in significance and activity all that had gone before. Reproduction cost as a measure of rate-making value began to go into eclipse. The Uniform System of Accounts was set up. With the Hope decision the commissions were relieved of all but a vestigial remnant of constitutional restriction on their rate-making authority. It was the *administrative* phase. State commissions entered into an era of new responsibility. Their staffs got bigger and better appropriations. Occasional clashes but more often co-operation with federal commissions ensued. Stricter conformity with original cost less depreciation became the prevailing rate base approach.

More recently, however, the arguments in the regulatory field have revolved about changing economic problems. There was the Phillips decision on June 7, 1954 (3 PUR3d 129), in which the Federal Power Commission was itself reversed—not because it had attempted to exceed its authority, but because the highest court found that *the commission had not extended its authority far enough* with reference to regulation of independent natural gas producers. Twice Congress

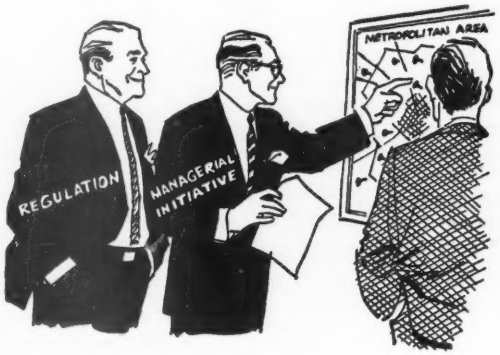
has voted to annul that decision, and twice vetoes by two different Presidents have intervened. Today, five years after the Phillips decision, it is still the law of the land, with the chances of any early change diminishing.

And so it has been with other recent decisions of the highest court on the work of the federal commissions. The court seems to be telling the commissions to go farther, to regulate more actively. The SEC, now in the twilight of the once drastic and ambitious "death sentence" reorganization under the Holding Company Act, has yet to suffer a major reversal. The Federal Power Commission, in its hydroelectric licensing jurisdiction, has had similiar experience. The Federal Trade Commission, in its general business regulation, the Interstate Commerce Commission in its railroad regulation, have yet to be told in major test cases that they have exceeded their authority. The Federal Communications Commission in its radio and TV licensing work has even been under pressure of the higher courts to observe more rigid standards of regulatory procedure, evidence, and rule making.

The Problems of the Future

All this has shown that commission regulation is not only here to stay but that it has never stood still. Regulation, like the Constitution under which it functions, is a living thing. It cannot be locked off into any permanent formula. It must change as the economic system in which it operates changes. The good, sound, practical regulation of one decade may not necessarily be the good, sound, practical regulation of another decade, and the U. S. Supreme Court has always wisely insisted upon reserving this elasticity.

Reference already has been made to the Phillips decision which thrust upon the Federal Power Commission a broad regulatory responsibility over natural gas producers which it certainly did not seek, and obviously did not want. Today that commission faces a Herculean task of disposing of a backlog of more than 2,000 producer rate cases, with more piling up at the rate of 200 a month. But since Congress has refused to legislate a way out, the commission must find a regulatory way out. And it will, too. The path ahead is difficult and complex; but somehow we may be sure the commission will find a practical solution for doing those things



which the court says have to be done under the present law.

THIS is a good demonstration of the elasticity and resilient nature of commission regulation as an institution. Fortunately, the day of opposition and obstruction to commission regulation by the utilities themselves has been gone for some time. But commission regulation still needs support from the public and that, in turn, means that it must be understood by the public. Selling regulation to the public is a job that is never finished and never will be finished. It is a constant challenge to those with the public interest at heart. It is in this field that continuous expository effort, such as the articles in PUBLIC UTILITIES FORTNIGHTLY, has a never-ending mission.

And no discussion of future problems would be complete without reference to inflation, the biggest economic bugaboo of all, for regulating utility industry. The "ghost of Smyth *v.* Ames" is still with us and is likely to be for as far ahead as we can see.

THEN, too, the changing composition of the commissions themselves and the U. S. Supreme Court may bring new ideas, new thinking into the regulatory picture. And if such changes do not happen soon enough, it may be that the legislatures, including the federal Congress, will have to pitch in and tune up the regulatory statutes once more to harmonize with greatly changed economic conditions. Maybe the evolutionary process already mentioned, which has taken regulation progressively through the legislature, judicial, and administrative phases, will have to turn full circle and put the corrective responsibility back on the lawmakers.

It is to this continuous pattern of change and adjustment without sacrifice of basic guiding principles of public interest that PUBLIC UTILITIES FORTNIGHTLY remains devoted—for many more years, I hope.

"PROFIT, over the years, is nothing more nor less than the price which a corporation must pay for the use of all the plants, mills, furnaces, machines, tools, and other capital assets that it needs in the fabrication of its product.

"Without sufficient profits, industry can no longer replace its tools of production as fast as they wear out, at which point the workers who once used these tools are without work. Is that in the public interest?

"Without adequate profits, industry can no longer adapt the fruits of research and improve—as it constantly has—our nation's standard of living. Is that in the public interest?

"Without enough profit, industry can no longer develop the new sources of raw materials that this nation must have. Will that be in the public interest?

"Neither can this industry obtain the new, more efficient machines and techniques that have thus far enabled it to absorb so much of the rising cost of labor and materials. Will that be in the public interest?"

—ROGER M. BLOUGH,
Chairman of the board, United States Steel Corporation.

Telephone and Telegraph

The Silver Anniversary of the Federal Communications Commission

JUNE 19th marked the twenty-fifth anniversary of the Federal Communications Commission. It was on that June day a quarter of a century ago that the Communications Act of 1934 became law. In brief, that act charged the commission with regulating interstate and foreign communication by radio, wire, and cable to the inclusion of telegraph, telephone, and broadcast; promoting safety of life and property and the national defense through such means; and encouraging larger and more effective use of radio in the public interest.

For these purposes, the act centralized in a single agency (the FCC) broadcast regulatory functions previously exercised by the Federal Radio Commission; certain supervision of telephone and telegraph operations formerly vested in the Interstate Commerce Commission; jurisdiction over government telegraph rates which had been under the Post Office Department, and some authority of the Department of State with respect to submarine cable landing licenses. It also gave the FCC additional authority, including supervision of rates of interstate and international communications common carriers, and domestic administration of international telecommunication treaties and other agreements to which the United States is a party.

The Commission

THE commissioners operated initially in three divisions—broadcast, telegraph, and telephone—each supervised by the chairman and two commissioners. This divisional authority was abolished in 1937 in favor of unified control by the commissioners as a body.

Until 1950, the commission had four major administrative bureaus—engineering, accounting, law, and secretary. Subsequent reorganization resulted in the present four bureaus—broadcast, common carrier, safety and special radio services, and field engineering and monitoring—as well as offices of administration, secretary, chief engineer, general counsel, hearing examiners, opinions and review, and reports and information.

It is interesting to note that two present members of the FCC were on the staff of the original commission. Commissioner Rosel H. Hyde transferred from the Federal Radio Commission as an attorney, later became the FCC's general counsel, and served a term as chairman. Commissioner Robert T. Bartley was director of

the commission's original telegraph division. Twice an FCC commissioner, T. A. M. Craven, who had served on the staff of the old FRC, started with the FCC in 1935 as its chief engineer. Commissioner Frederick W. Ford joined the FCC in 1947 and was the first chief of the broadcast bureau's hearing division. Three members of the original commission are still surviving in retirement, Paul A. Walker, Norman Case, and Irvin Stewart.

Then and Now

THE commission's work load in radio authorizations alone has almost multiplied by the number of its years—23 times as many now as in 1934. Its 1934 budget was nearly $2 million; in 1959, for the first time, it exceeds $9 million. However, its personnel during the interval has only slightly more than doubled—from about 500 at the close of its first year to some 1,200 today. Its present staff is smaller than for ten previous years. Approximately one-third of its employees are engaged in field engineering work.

Twenty-five years ago the commission had about 108,000 radio authorizations of all kinds—51,000 stations and 57,000 radio operator permits (commercial and amateur). The present number of radio authorizations exceeds 2.3 million, covering half a million stations (which use nearly 1.5 million transmitters), and 1.8 million radio operator permits of different grades.

A comparison of radio authorizations at the close of the FCC's first year with those at the end of the first quarter of 1959 follows:

Stations	*June 30, 1935*	*Mar. 31, 1959*
Marine	2,157	80,876
Aviation	678	74,455
Public Safety	298	28,733
Industrial	146	46,565
Land Transportation	0	55,412
Amateur	45,561	192,364
Broadcast	623	9,839
Common Carrier ..	565	3,659
Experimental	1,012	886
Other	34	9,262
Subtotal	51,074	502,051
Operators		
Commercial	*21,000	1,654,192
Amateur	36,525	* 185,000
Subtotal	57,525	1,839,192
Grand total ...	108,599	2,341,243

*Estimated.

Less than 10,000 applications of all kinds were received by the commission in its initial year of operation. The annual figure now approximates 540,000, not counting legal, tariff, and other filings.

Common Carriers

THE past twenty-five years have witnessed the automation and expansion of common carrier facilities, including the installation of nation-wide networks of coaxial cable and microwave radio systems and overseas telephony by cable as well as by radio. All segments of the telephone and telegraph industry have kept pace with electronic progress both in services, equipment, and operating techniques.

The United States has more than half of the world's telephones. In 1934 it had approximately 17 million telephones, which handled a daily average of 73 million calls. Today nearly 67 million telephones carry 250 million conversations each day. More than 80 per cent of these telephones are in the Bell system, of which nearly 94 per cent are now dial operated. Telephone users dial directly a fifth of their long-distance calls, and three-quarters of the remainder are dialed by telephone operators. Telephone service extends to ships, trains, and motor vehicles. For the networking of radio and TV programs, the Bell system in 1958 furnished the broadcasting industry 84,000 channel

miles of video circuits and 350,000 channel miles of audio program facilities.

IN 1934 radiotelephone service was possible with about 60 foreign countries. That number has since increased to 125. The first transatlantic telephone cable was opened in 1956, and another one is being laid. Alaska and Hawaii have since been linked with the continental United States by telephone cable. International telephone traffic increased from 16,500 conversations in 1934 to 2.7 million conversations in 1958. Also, in recent years telex service to many foreign countries has been established by the overseas telegraph industry.

When the FCC was created, there were two competitive domestic wire telegraph companies—Postal and Western Union. Collectively, they handled over 140 million telegraph messages in 1934, and in addition participated in the handling of many of the 14 million international messages entering or leaving the country in that year. Postal and Western Union were merged in 1943. The new single national telegraph system (Western Union) handled about 123 million land-line domestic messages in 1958, while the volume of international telegraph traffic of all carriers amounted to about 22 million messages for that year. Western Union is extending the Chicago terminus of its present microwave system to St. Louis and Kansas City. Its facsimile, direct tie-line connection, customer-to-customer, and leased private wire services have seen marked expansion.

Telecommunication Progress

TELECOMMUNICATION has advanced a long way since 1934, making its biggest strides since World War II. Postwar development of new electronic devices and techniques has opened the door to new uses of radio besides contributing to the expansion and efficiency of older communication systems.

The United States has become the world's biggest user of radio. Its importance in the American way of life is attested by the fact that usage actually extends "from the cradle to the grave." Radio summons doctors and ambulances to the homes of expectant mothers; helps to educate the young; aids business and commerce; protects life and property; entertains people of all ages; and, at life's end, dispatches vehicles in connection with death and burial.

Many present radio services evolved from experimental operations in the early days of the FCC. Radar, transistors, coaxial cable, and microwave have made important contributions. In addition to being air-, water-, and land mobile-borne, radio equipment has become more compact to the inclusion of transmitting and receiving sets of diminishing size.

THAT radio is no longer earthbound is evinced by the start of communication with objects in outer space.

Though a quarter of a century has elapsed, the following observation of the commission in 1934 is as true today as it was then, but in a greatly magnified degree:

> There are no fields of engineering in which new devices and inventions are being disclosed at a more rapid pace than in wire and radio communications. The arts, both in theory and practice, are extremely complex and cover a vast field. New devices and improvements, no matter in what radio or wire services developed, are as a general rule immediately reflected in potentialities for improvement and actual application in all other services.

Financial News and Comment

By OWEN ELY

Life of an Electric Utility—1903 to Date

1903-58 Trends in Utility Growth, Efficiency, Rates, and Costs

In connection with a recent talk by President Cisler of Detroit Edison before the New York Society of Security Analysts, Vice President Eldred Scott prepared a rather unique compilation of financial and operating statistics for the company covering a period of fifty-six years. Since the company may be considered a typically progressive electric utility, its growth and development should be expected to parallel that of the entire industry. And since comparable data for the entire industry are not readily available covering such a span of years, a study of this tabulation seemed appropriate for this Thirtieth Anniversary issue of the FORTNIGHTLY.

The four charts on page 72 are based on data for selected years in the tabulation, in order to reflect historic trends. Kilowatt-hour rates were derived by dividing revenues by corresponding kilowatt-hour sales figures. Some of the efficiency figures were altered to suit the purpose of the graph. Another efficiency item which might well have been presented in the chart is "line losses." Thus in 1903 kilowatt-hour sales were only 7,150,000 kilowatts compared with 11 million kilowatts net output—indicating that company uses and line losses totaled 35 per cent of output. In 1958, however, 11.8 billion kilowatt-hours were sold out of 13 billion produced, with a shrinkage of only 10 per cent. This change was naturally an important offset to inflationary factors.

It was difficult to obtain complete and comparable income figures from the tabulation, and the breakdown of the revenue dollar, being partly estimated, is presented in the table on page 71 merely to illustrate trends in a broad way.

An interesting feature of this table is the sharp increase in fuel costs in 1920 and the very big decline in the following decade—obviously, that decline had much to do with the sudden prosperity of the electric utilities. The subsequent increase in fuel costs during the 1940's was par-

DEPARTMENT INDEX

tially offset by a decline in fixed charges (resulting from low money rates) as well as in maintenance and depreciation.

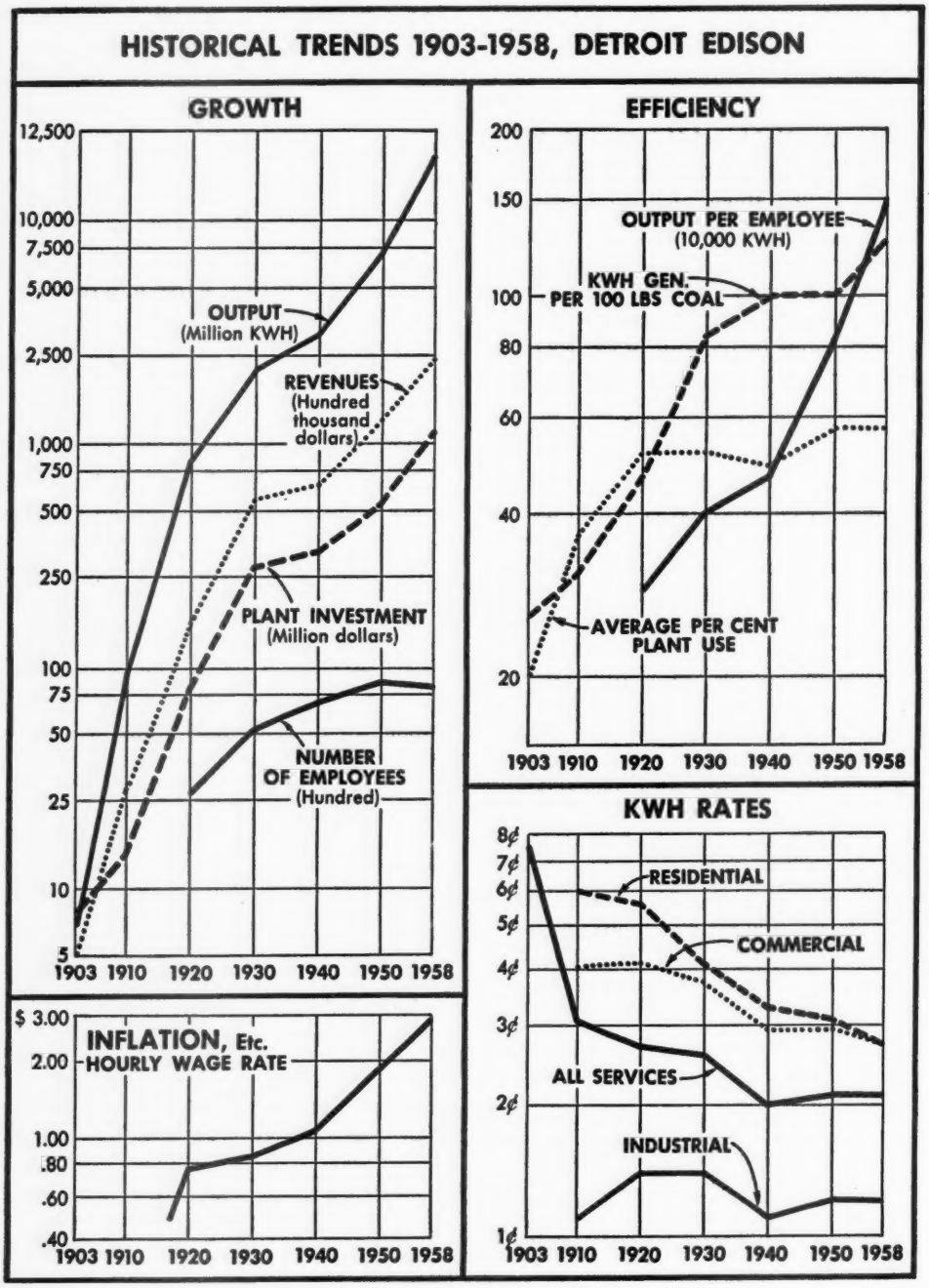
Depreciation—Old and New Ramifications

BACK in the 1920's the state commissions (with some exceptions) had not gotten around to regulating depreciation very closely, and federal commissions had not yet acquired the powers to regulate accounting on the wide basis they now have. As a result, in many cases the annual accrual for depreciation was merely a round-sum "retirements" figure appropriated at the year end by directors and dependent in some cases on the trend in earnings. (This method is still in use in Canada in some instances.) Moreover, during the 1920's a few of the holding companies (but not all) omitted depreciation accruals in reporting their own per share earnings on a consolidated basis.

Gradually, as the result of increased federal and state regulation and improved standards adopted by utility executives, more adequate methods came into use. In the earlier efforts to spread depreciation over the life of the property in accord with scientific principles, such methods as "compound interest" or "sinking-fund" accrual were adopted in some cases. However, federal and state commissions have gradually adopted the "straight-line" method which spreads the charges evenly over the estimated life of the property. While it may not be scientific, this is an easily understood and practical method, and it has gained wide acceptance in recent years.

NOW, however, the idea is being advanced that the stockholders' books should reflect "economic depreciation" to offset the inflated cost of replacing old plant. Chairman Roger Blough of United States Steel has been active in promoting this idea. In the utility field it ties in with the fair value rate base. The first utility company to adopt "fair value depreciation expense" was Iowa-Illinois Gas & Electric Company. (The Sacramento Municipal Utility District began to use the idea a little earlier.) After the supreme court of Iowa allowed depreciation as an operating expense based on present value rather than original cost, the company began charging an additional or "fair value" depreciation expense item of $60,000 per month for those portions of its plant covered by the decision. Thus in the 1958 income account "cost" depreciation amounted to $3,374,554 while "fair value" depreciation equaled $420,000 for seven months, or at the annual rate of $720,000. As the exact amount of rate base to which the special accrual was applied was not indicated, the arithmetical relation of the new depreciation item to the old was not clarified. The principle of the new accounting was approved by the auditors, Arthur Andersen & Co., who stated:

	1903	*1910*	*1920*	*1930*	*1940*	*1950*	*1958*
Fuel	22%	17%	38%	11%	11%	22%	18%
Maintenance and Depreciation	9	9	7	19	21	15	16
Taxes	5	5	5	11	16	14	18
Misc. Expense (Est.)	32	28	30	27	27	33	31
Fixed Charges	22	20	12	11	9	5	5
Net Income	10	21	8	21	16	11	12
Total	100%	100%	100%	100%	100%	100%	100%


HISTORICAL TRENDS 1903-1958, DETROIT EDISON
GROWTH
12,500
10,000
7,500
5,000
2,500
1,000
750
500
250
100
75
50
25
10
5
OUTPUT (Million KWH)
REVENUES (Hundred thousand dollars)
PLANT INVESTMENT (Million dollars)
NUMBER OF EMPLOYEES (Hundred)
1903 1910 1920 1930 1940 1950 1958
EFFICIENCY
200
150
100
80
60
40
20
OUTPUT PER EMPLOYEE (10,000 KWH)
KWH GEN. PER 100 LBS COAL
AVERAGE PER CENT PLANT USE
1903 1910 1920 1930 1940 1950 1958
KWH RATES
8¢
7¢
6¢
5¢
4¢
3¢
2¢
1¢
RESIDENTIAL
COMMERCIAL
ALL SERVICES
INDUSTRIAL
1903 1910 1920 1930 1940 1950 1958
$ 3.00
2.00
1.00
.80
.60
.40
INFLATION, Etc.
HOURLY WAGE RATE
1903 1910 1920 1930 1940 1950 1958

Although generally accepted accounting principles presently provide that depreciation shall be based upon the cost, it is our opinion that these principles should be changed with respect to depreciation to recognize increased price levels. We approve of the practice adopted by the company, since it results, in our opinion, in a fairer statement of income for the year . . .

ELECTRICAL WORLD (March 9th, pp. 99, 102) points out that the government-owned Central Electricity Authority of Great Britain has been more realistic with respect to depreciation than U. S. utilities—its depreciation reserve is about 38 per cent of plant compared with 19 per cent in this country. Britain has made more adequate provision for obsolescence than we have—although the problem is equally serious here. Unfortunately, private utilities must weigh the present need to sustain earnings and security values against preparation for future hard times; and the regulatory commissions share the blame, since they also want to sustain reported earnings.

Book depreciation for all electric utilities averages about 2¼ per cent of the entire plant, although for some conservative companies the ratio may be as high as 3 per cent. This may make adequate allowance for wear and tear, but does it provide amply for obsolescence based on our rapid technological progress? The gas companies at the time they converted from manufactured to natural gas did not have adequate reserves, and most of them had to write off substantial plant items over a period of ten to fifteen years. However, they enjoyed substantial benefits earnings-wise from the conversion (since line capacity almost doubled with the change-over to 1,000 Btu gas).

ELECTRIC utilities have thus far been very fortunate—they have benefited and not been hurt by technological changes. Now, however, the possibility seems not too farfetched that cheap local sources of electricity may be developed and that some industrial or other consumers might decide to bypass the central generating station. Westinghouse Electric recently developed for the Air Research and Development Command a new thermoelectric generator with 100 watts power (about ten times as much as had previously been developed)—enough to light a large room or power a portable TV set. About the size of a medicine ball and weighing 40 pounds, it burns propane but can be adapted to other fuels. If progress in this direction continues, there might be some future threat to some types of utility service. Greater thought might be given to the need for higher depreciation charges

CURRENT YIELD YARDSTICKS
(Standard & Poor's Indexes)

	June 10, 1959	*1958-59 Range*		*1957 Range*	
		High	*Low*	*High*	*Low*
Utility Bonds—A1+	4.53%	4.53%	—3.58%	4.38%	—3.70%
—A1	4.58	4.59	—3.61	4.41	—3.73
—A	4.74	4.78	—3.85	4.70	—3.96
—B1+	5.08	5.12	—4.20	5.21	—4.21
Preferred Stocks*	4.80	4.80	—4.26	4.86	—4.42
Utility Common Stocks	3.92	4.98	—3.71	5.44	—4.73

*Twelve industrial and two utility issues (high-grade).

to protect against any such obsolescence.

Unfortunately, perhaps, for the student of utility finance and the investor in utility securities, depreciation has two faces —one for the stockholder and the public, and the other for the income tax collector —and there is little connection between the two. Depreciation as reported to the income tax bureau of the Treasury Department (based on statutory standards) has historically exceeded book depreciation, and only rarely has it coincided with the latter. There has always been a temptation—obviously greater during the 1920

RECENT UTILITY BROCHURES BY WALL STREET FIRMS*

Company Analyses	*Firm*	*No. of Pages*	*Month Issued*
American Natural Gas	Argus Research Corporation	—	June
American Tel. & Tel. Co.	Reynolds & Co.	1	April
American Tel. & Tel. Co.	Oscar Gruss & Son	3	April
American Tel. & Tel. Co.	A. G. Becker & Co., Inc.	1	May
American Tel. & Tel. Co.	David J. Greene & Co.	7	April
Anglo-Canadian Tel. Co.	Amott, Baker & Co., Inc.	1	Jan.
Arkansas Louisiana Gas	Orvis Bros. & Co.	4	May
Arkansas Louisiana Gas	Argus Research Corporation	—	April
British Columbia Tel.	John H. Lewis & Co.	2	May
Brooklyn Union Gas	Blair & Co. Incorporated	2	April
Brooklyn Union Gas	Laird, Bissell & Meeds	4	Feb.
Brooklyn Union Gas	Green, Ellis & Anderson	2	May
Citizens Utilities Co.	Walston & Co., Inc.	3	—
Detroit Edison Co.	Argus Research Corporation	2	Mar.
Detroit Edison Co.	Argus Research Corporation	1	April
El Paso Natural Gas	Reynolds & Co.	2	May
Greyhound Corp.	Argus Research Corporation	2	Mar.
Illinois Power	Argus Research Corporation	—	Feb.
International Tel. & Tel.	Sutro & Co.	2	May
International Tel. & Tel.	Merrill Lynch, Pierce, Fenner & Smith	3	Mar.
International Tel. & Tel.	Orvis Bros. & Co.	4	Mar.
Lake Superior District Power	The Milwaukee Company	2	May
Northern Natural Gas	Argus Research Corporation	2	May
Northern States Power Co.	Hayden, Stone & Co.	1	Mar.
Orange & Rockland Utilities	G. A. Saxton & Co., Inc.	3	May
Pacific Gas & Electric	Fahnestock & Co.	2	Mar.
Philadelphia Electric Co.	Argus Research Corporation	—	Mar.
Public Service E. & G.	Shearson, Hammill & Co.	2	Mar.
Public Service of Indiana	Argus Research Corporation	2	May
Public Service of Indiana	Argus Research Corporation	2	April
Rochester Tel. Corp.	Merrill Lynch, Pierce, Fenner & Smith	2	Mar.
San Diego Gas & Elec.	Sutro & Co.	1	May
Southern Natural Gas	Argus Research Corporation	2	May
Texas Utilities	Merrill Lynch, Pierce, Fenner & Smith	2	Mar.
Western Union	Merrill Lynch, Pierce, Fenner & Smith	3	Mar.
Wisconsin Public Service	Paine, Webber, Jackson & Curtis	1	May
Tabulations, General Studies, Etc.			
Effect of Accelerated Depreciation Accounting Policies on Earnings of Electric Utilities in the State of New York	Goodbody & Co.	5	Mar.
Electric Utility Common Stocks	Dominick & Dominick	11	Feb.
Electric Utility Common Stocks	Bache & Co.	6	Feb.
Public Utilities Bulletin**	Eastman Dillon, Union Securities & Co.	10	April
Telephone Industry	David L. Babson & Co.	4	May
Tabulation of Electric and Gas Utility Stocks	The First Boston Corp.	12	June

*This list is published several times a year, the last previous one being in the March 12th issue.
**Issued every two weeks, contains news stories on a number of utilities.

period of holding company promotion—to make depreciation as heavy as permissible for tax purposes, thus decreasing taxable earnings and reducing income taxes. At the same time book depreciation was kept low in order to increase the amount available to common stock.

DURING World War II, however, when excess profits taxes were being levied on utility earnings, the fact came to light that the heavy write-offs permitted by income tax regulations had reduced some net plant accounts on the Treasury books to relatively low figures. During the Korean War excess profits taxes were to be figured after allowing a 6 per cent return on net plant; but this exemption turned out to be very low for some companies because net plant was low. Hence, to avoid levying dangerously large taxes, Congress hastily set up new methods for defining exempted income.

While the income tax bureau has apparently always been rather liberal in setting up depreciation regulations, Congress itself in the postwar period has enacted rules specifically permitting depreciation in excess of straight line. In the 1940's accelerated "amortization" (depreciation under another name) was adopted as a stimulus to building additional plant capacity—since during the war excess capacity had fallen to a low figure, and Congress was concerned about defense difficulties in the event of a future war. Five-year depreciation was allowed on a straight-line basis, but only covering a portion of those new plants for which special "certificates of necessity" could be obtained from the Office of Civil and Defense Mobilization.

With average reserve capacity now somewhat above normal, the issuance of these certificates has been discontinued and in one or two years this form of depreciation may expire, so far as utilities are concerned.

MORE recently the 1954 Tax Code was amended to permit "accelerated depreciation," which would apply to all new units of property constructed since January 1, 1954, without the necessity of obtaining certificates; it was permissive and not mandatory. Several methods of accelerating depreciation in the earlier years (thus temporarily reducing taxes) were defined, such as "sum of the years' digits" and the "declining balance" method. This move on the part of Congress appeared due to a desire to stimulate construction and thereby improve business activity. While the intent of the law was presumably to make interest-free loans to business (by deferring the collection of taxes to later years) the results have probably been more complicated than Congress had foreseen.

The difference between the two sets of rules for depreciation accruals—those used for regular book accounting, and those used for tax accounting—did not present any great difficulties up to 1954. The resulting reductions in taxes were generally ignored in published reports, except where they were quite substantial, in which case a special "charge in lieu of taxes" was sometimes employed to avoid a sudden and unexplained jump in net earnings. Savings resulting from five-year amortization have been almost universally "normalized" by inserting a deferred tax item in the published income account. However, with the advent of accelerated depreciation some companies decided not to normalize the tax savings (thus increasing reported net earnings) while the majority have thus far normalized. In some cases the state commissions have objected to normalization, in connection with rate proceedings, so that rates would not have to be raised

as much as requested. Thus the whole subject is becoming very involved, as noted in this department from time to time.

Now another possible complication in depreciation for tax purposes is being discussed. In an article entitled "Depreciation Reform: Initial Write-off?", in the magazine *Steel* for April 13th, the initial write-off of 20 per cent is discussed. This is already part of § 179 of the Internal Revenue Code of 1954, but since it has applied only to units of property of less than $10,000 value in the year of acquisition, it has escaped wide attention. While it was apparently a special "gimmick" intended to aid small business, it is available to all companies—but of course with the $10,000 limit the benefit to a big corporation is negligible. Removal of the dollar limit would permit very heavy write-offs in the first year (26.4 per cent with the sum of the years' digits, assuming twenty-five years of service; as high as 46.7 per cent with six years' life).

The utility companies which serve natural gas, and which own part or all of the production properties necessary to obtain their gas supply, have special problems with respect to *depletion*—another facet of depreciation. Oil and gas are frequently produced together. The 27½ per cent depletion allowance on oil and natural gas (in income tax returns) has been retained in order to encourage exploration and drilling. However, there is now some regulatory threat that these tax savings (heretofore available to gas utility companies having their own production) may be passed on to the consumer in rate cases, thus denying the benefits to the stockholder.

THUS it is obvious that depreciation has come to have widespread ramifications in tax policies, accounting, construction, politics, regulation, and finance. The investor in utility securities must have at least a superficial knowledge of these complications in order to properly appraise utility earnings, dividends, and market values.

FINANCIAL DATA ON ELECTRIC UTILITY STOCKS

Annual Rev. (Mill.)			*6/10/59 Price About*	*Div. dend Rate*	*Approx. Yield*	*Recent Share Earns.*	*% Increase*	*Aver. Incr. In Sh. Earns. 1953-58*	*Price-Earn. Ratio*	*Div. Pay-out*	*Approx. Common Stock Equity*
$297	S	American Elec. Power	50	$1.68	3.4%	$2.34Ap	5%	9%	21.4	71%	33%
57	O	Arizona Pub. Serv.	35	1.20	3.4	*1.80Ma	—	11	*19.4	67	28
12	O	Arkansas Mo. Power	22	1.00m	4.5	1.48Ma	4	2	14.9	67	32
36	S	Atlantic City Electric	42	1.50	3.6	2.00Ap	11	10	21.0	75	30
153	S	Baltimore Gas & Elec.	46	1.80	3.8	2.61Ma	18	8	17.6	69	41
7	O	Bangor Hydro-Elec.	40	2.00	5.0	2.75Ma	27	5	14.5	73	33
6	O	Black Hills P. & L.	30	1.44	4.8	2.25Ap	9	4	13.3	64	32
109	S	Boston Edison	61	2.80	4.6	3.55De	14	4	17.2	79	43
27	A	Calif. Elec. Power	19	.80	4.2	*1.17Ma	26	6	*16.2	68	35
23	O	Calif. Oreg. Power	35	1.60	4.6	1.98De	27	3	17.7	81	37
9	O	Calif. Pac. Util.	36	1.60	4.4	2.39Ap**	4	20	15.1	67	31
70	S	Carolina P. & L.	36	1.32	3.7	2.01Ap	4	7	17.9	66	42
32	S	Cent. Hudson G. & E.	19	.80	4.2	*1.29Ma	2	6	*14.7	62	36
23	O	Cent. Ill. E. & G.	31	1.44	4.6	2.03Ap	—	4	15.3	71	43
39	S	Cent. Ill. Light	32	1.40	4.4	2.16Ma	5	9	14.8	65	33
55	S	Cent. Ill. P. S.	41	1.76	4.3	2.59Ma	1	16	15.8	68	35
17	O	Cent. Louisiana Elec.	49	1.80	3.7	2.20Ma	D2	8	22.3	82	30
39	O	Cent. Maine Power	25	1.40	5.6	*1.56Ap	D15	3	*16.0	90	33
147	S	Cent. & South West	58	1.80	3.1	2.62Ma	7	10	22.1	69	38
12	O	Cent. Vermont P. S.	20	1.00	5.0	*1.38Ma	27	11	*14.5	72	35
128	S	Cincinnati G. & E.	33	1.50	4.5	1.84Ma	D8	4	18.0	82	43
8	O	Citizens Util. "B"+	13	.53	4.0	.64De	6	6	20.0	82	48

Annual Rev. (Mill.)		(Continued)	6/10/59 Price About	Divi-dend Rate	Approx. Yield	Recent Share Earns.	% In-crease	Aver. Incr. In Sh. Earns. 1953-58	Price-Earn. Ratio	Div. Pay-out	Approx. Common Stock Equity
119	S	Cleve. Elec. Illum.	47	1.60	3.4	2.65Ma	1	6	17.7	60	45
6	O	Colo. Cent. Power	42	1.44	3.4	2.07Ma	15	6	20.3	70	39
46	S	Columbus & S. O. E.	35	1.60	4.6	1.99Ap	D18	—	17.5	80	30
405	S	Commonwealth Ed.	58	2.00h	5.5h	3.55Ap	23	8	16.3	56	43
14	A	Community Pub. Ser.	22	1.00	4.5	1.33Ma	1	5	16.5	75	46
78	O	Conn. Lt. & Pr.	23	1.10	4.8	*1.31Ap	1	5	*17.6	84	39
582	S	Consol. Edison	63	2.80	4.4	*3.94Ma	8	5	*16.0	71	38
228	S	Consumers Power	53	2.40	4.5	3.31Ma	—	—	16.0	73	39
83	S	Dayton P. & L.	52	2.40	4.6	3.28Ma	D1	4	15.9	73	40
50	S	Delaware P. & L.	64	2.10	3.3	3.02Ma	7	11	21.2	70	33
246	S	Detroit Edison	43	2.00	4.7	2.24Ap	D10	3	19.2	89	47
145	A	Duke Power	46	1.40i	3.0	2.10Ma	8	11	21.9	67	46
99	S	Duquesne Light	24	1.10	4.6	*1.38Ma	D1	5	*17.2	80	34
33	O	East. Util. Assoc.	41	2.20	5.4	2.83Ap	11	2	14.5	78	34
16	O	El Paso Elec.	32	1.16	3.6	1.60Ap	11	10	20.0	73	37
12	S	Empire Dist. Elec.	24	1.20	5.0	1.67Ma	17	3	14.4	72	33
57	S	Florida Power Corp.	26	.72	2.8	1.16Ma	7	18	22.4	62	35
145	S	Florida P. & L.	44	.88	2.0	1.77Ma	12	26	24.8	50	42
4	O	Florida Pub. Utilities	21	.72	3.4	1.10Ma	D13	3	19.1	65	31
213	S	General Pub. Util.	50	2.12	4.2	*3.16Ma	4	7	*15.8	67	40
7	O	Green Mt. Power	21	1.00	4.8	1.44Ma	22	12	14.6	69	37
70	S	Gulf States Util.	56	1.80	3.2	2.62Ap	14	7	21.4	69	37
51	A	Hartford Electric	66	3.00	4.5	*3.61Ma	D3	5	*18.3	83	40
25	O	Hawaiian Elec.	52	2.50	4.8	2.92Ma**	D3	6	17.7	86	38
94	S	Houston L. & P.	69	1.60	2.3	2.93Ap	6	9	23.5	55	44
30	S	Idaho Power	43	1.70	4.0	2.40Ap	NC	10	18.0	70	33
92	S	Illinois Power	36	1.50	4.2	2.32Ap	15	10	15.5	65	37
49	S	Indianapolis P. & L.	38	1.50	4.0	2.28Ma	7	8	16.7	66	35
31	S	Interstate Power	18	.85	4.7	1.16Ma	10	4	15.5	73	32
37	S	Iowa Elec. L. & P.	35	1.60	4.6	2.18Ap	3	6	16.0	73	40
44	S	Iowa-Ill. G. & E.	37	1.80c	4.9	2.47Ap	D5	—	15.0	73	43
41	S	Iowa P. & L.	34	1.60	4.7	2.13Ma	5	1	16.0	75	34
35	O	Iowa Pub. Ser.	18	.80	4.4	1.24Ap	9	8	14.5	64	32
15	O	Iowa Southern Util.	29	1.36	4.7	2.10Ap	9	4	13.8	65	40
61	S	Kansas City P. & L.	48	2.20	4.6	3.02Ap	1	5	15.9	73	38
33	S	Kansas G. & E.	42	1.48	3.5	2.61Ap	9	9	16.1	57	31
50	S	Kansas P. & L.	30	1.36	4.5	2.09Ma	5	12	14.3	65	34
43	O	Kentucky Util.	33	1.52	4.6	2.53Ma	23	8	13.0	60	40
7	O	Lake Superior D. P.	25	1.20	4.8	1.59Ma	D3	2	15.7	75	41
122	S	Long Island Ltg.	33	1.20	3.6	*1.93Ap	NC	8	*17.1	62	36
61	S	Louisville G. & E.	39	1.30	3.3	2.24Ma	7	7	17.4	58	42
11	O	Madison G. & E.	50	1.80	3.6	3.71Ma	D4	2	13.5	49	45
5	A	Maine Pub. Ser.	22	1.20	5.5	1.45Ap	4	7	15.2	83	40
7	O	Michigan G. & E.	69	1.70j	5.5	5.34Ma	22	10	12.9	32	37
183	S	Middle South Util.	46	1.90	4.1	2.64Ap	3	5	17.4	72	39
30	S	Minn. P. & L.	34	1.60	4.7	2.26Ap	D12	3	15.0	71	33
3	O	Miss. Valley P. S.	30	1.40	4.7	2.28Ap	10	5	13.2	61	33
15	S	Missouri P. S.	17	.72f	6.2	.84Ap	D20	3	20.2	86	30
7	O	Missouri Util.	25	1.36	5.4	1.68Ma	D3	—	14.9	82	30
44	S	Montana Power	71	2.40	3.4	*4.15Ma	11	10	*17.1	58	39
167	S	New England Elec.	20	1.00	5.0	1.31Ma	6	2	15.3	76	36
46	O	New England G. & E.	22	1.10	5.0	1.69Ap	11	7	13.0	65	41
98	S	N. Y. State E. & G.	52	2.30	4.4	*4.09Ap	24	11	*12.7	56	35
264	S	Niagara Mohawk Pr.	37	1.80	4.9	*2.12Ma	6	—	*17.5	85	28
92	O	Northern Ind. P. S.	49	2.00	4.1	2.88Ma	D5	3	17.0	69	36
155	S	Northern Sts. Power	24	1.10	4.6	1.36Ma	6	3	17.6	81	33
11	O	Northwestern P. S.	21	1.00	4.8	1.51Ma	2	2	13.9	66	32
138	S	Ohio Edison	58	2.64	4.6	3.71Ap	3	3	15.6	71	40
54	S	Oklahoma G. & E.	28	1.00	3.6	1.48Ap	10	10	18.9	67	31
26	O	Orange & Rockland Utils.	23	.90	3.9	*1.29De**	3	22	*17.8	70	27
17	O	Otter Tail Power	32	1.60	5.0	2.33Ap	5	1	13.7	69	30
535	S	Pacific G. & E.	60	2.60	4.3	3.72Ma	4	7	16.1	70	34
52	O	Pacific P. & L.	39	1.60	4.1	*2.40De	17	9	*16.3	67	30
131	S	Penn Power & Lt.	28	1.25	4.5	1.58Ma	—	2	17.7	80	34

Annual Rev. (Mill.)		(Continued)	6/10/59 Price About	Dividend Rate	Approx. Yield	Recent Share Earns.	% Increase	Aver. Incr. In Sh. Earns. 1953-58	Price-Earn. Ratio	Div. Payout	Approx. Common Stock Equity
248	S	Phila. Elec.	47	2.24	4.7	*2.86Ma	9	4	*16.5	78	40
36	O	Portland Gen. Elec.	26	1.20	4.6	1.80De	3	8	14.4	67	37
72	S	Potomac Elec. Pr.	26	1.20	4.6	*1.65Ma	7	7	*15.7	73	37
97	S	Pub. Serv. of Colo.	49	1.90k	3.9	2.61Ma	D3	5	18.8	73	33
344	S	Pub. Serv. E. & G.	38	1.80	4.7	2.38Ma	6	4	16.0	76	34
81	S	Pub. Serv. of Ind.	43	2.10	4.9	2.86Ap	4	5	15.0	73	33
32	O	Pub. Serv. of N. H.	19	1.00	5.3	1.32Ap	4	7	14.4	76	36
15	O	Pub. Serv. of N. M.	27	.90g	3.3	1.51Ma	22	11	17.9	60	34
27	S	Puget Sound P. & L.	33	1.44	4.4	*2.02Ma	10	12	*16.3	71	50
65	S	Rochester G. & E.	44	1.80	4.1	2.61Ma	18	3	16.9	69	37
9	S	St. Joseph L. & P.	32	1.50	4.7	1.91Ma	D5	2	16.7	79	34
59	S	San Diego G. & E.	26	1.04	3.8	1.60Ap	22	3	16.3	65	35
11	O	Savannah E. & P.	26	1.00	3.8	1.31Ap	D12	12	19.8	76	32
11	O	Sierra Pacific Pr.	32	1.40	4.4	2.10Ap	6	10	15.2	67	31
256	S	So. Calif. Edison	56	2.60	4.6	3.48Ma	9	9	16.1	75	36
50	S	So. Carolina E. & G.	32	1.30	4.1	1.85Ma	16	13	17.3	70	33
7	O	Southern Colo. Pr.	19	.90	4.7	1.53F	17	4	12.4	59	36
272	S	Southern Co.	36	1.30	3.6	1.77Ap	4	9	20.3	74	34
20	S	So. Indiana G. & E.	35	1.60	4.6	2.42Ap	—	3	14.5	66	35
8	O	So. Nevada Power	26	1.00	3.8	1.74Ap	24	7	14.9	58	46
3	O	Southwestern E. S.	16	.64	4.0	.99F	8	x6	16.2	65	27
44	S	Southwestern P. S.	41	1.48	3.6	1.87Ap	6	4	21.9	79	36
32	A	Tampa Elec.	47	1.20	2.6	1.79Ap	4	10	26.3	67	33
168	S	Texas Utils.	66	1.76	2.7	2.80Ap	10	12	23.6	63	41
42	S	Toledo Edison	17	.70	4.1	1.16Ma	14	4	14.6	60	31
17	O	Tucson G. E. L. & P.	24	.76	3.2	1.08Ma	D8	12	22.2	70	47
132	S	Union Elec. of Mo.	32	1.52	4.8	*1.77De	5	6	*18.1	86	32
36	O	United Illum.	27	1.38	5.1	1.77Ma	15	3	15.3	78	50
6	O	Upper Peninsula Pr.	30	1.60	5.3	1.69Ma	5	2	17.7	95	32
45	S	Utah Power & Light	32	1.20	3.8	1.82Ap	2	7	17.6	66	44
140	S	Virginia E. & P.	34	1.10	3.2	1.68Ma	NC	17	20.2	65	40
31	S	Wash. Water Pr.	42	2.00	4.8	*2.62Ap	7	6	*16.0	76	32
142	S	West Penn Elec.	34	1.60	4.7	2.30Ap	4	6	14.8	70	32
77	O	West Penn Power	57	2.40	4.2	3.32Ma	D1	6	17.1	72	38
12	O	Western Lt. & Tel.	41	2.00	4.9	2.94Ma	8	2	13.9	68	41
28	O	Western Mass. Cos.	24	1.20	5.0	1.63Ap	2	13	14.7	74	50
119	S	Wisc. Elec. Pr. (Cons.)	37	1.60	4.3	2.37Ma	2	1	15.6	68	40
44	O	Wisconsin P. & L.	31	1.36	4.4	2.15Ma	5	4	14.6	63	37
43	S	Wisconsin P. S.	25	1.20	4.8	1.83Ma	7	3	13.7	65	37
		Averages			4.3%		6%	7%	16.9	71%	
		Foreign Companies									
215	S	Amer. & Foreign Power	15	$1.00	6.7%	$1.72De	—	0	8.7	58%	44
129	A	Brazilian Traction	6	.25	4.0	.64De	D58%	—	9.4	39	76
83	A	British Col. Pr.	40	1.40	3.5	1.95De	D16	7%	20.5	72	28
20	O	Calgary Power	94	2.00	2.0	4.46De	11	18	21.1	45	31
19	A	Gatineau Power	42	1.50	3.6	2.55De	7	9	16.5	59	35
49	O	Mexican L. & P.	15	1.00b	6.7	1.66De	D16	—	9.0	60	41
15	A	Quebec Power	39	1.60	4.1	2.34De	8	10	16.9	68	53
71	A	Shawinigan Water & Pr.	32	.68	2.1	1.60De	5	23	20.0	43	38

*Deferred taxes resulting from liberalized depreciation are not normalized. If they had been normalized the price-earnings ratio would be higher. **On average shares. +Stock dividends (only) are paid on the "A" shares. x—Average increase in share earnings 1952-57. D—Decrease. NC—Not comparable. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. b—Also 5 per cent stock dividend May 1, 1959. c—Also 5 per cent stock dividend June 10, 1959. f—Also stock dividend of one-half per cent quarterly. g—Also 5 per cent stock dividend July 1, 1958. h—Also 2 per cent stock dividend November 20, 1958, included in the yield. i—Also 15 per cent stock dividend January 29, 1959. j—Also 3 per cent stock dividend (paid each year end) included in the yield. k—Also 5 per cent stock dividend payable February 20, 1959. m—Also 5 per cent stock dividend June 15, 1959.

What Others Think

A Chronology of Utility Regulation 1929-59

WHEN the first issue of PUBLIC UTILITIES FORTNIGHTLY was published in 1929, commission regulation had been quite generally established throughout the United States. Every state in the Union at that time, except Delaware, had some kind of regulatory commission, although several had only limited jurisdiction (such as in Iowa, Nebraska, Texas, and the Dakotas).

The principles of regulation had been fairly well set, although considerably changed since that time. Following the 1898 landmark decision in Smyth *v.* Ames, the U. S. Supreme Court took a stricter and stricter line on what amounted to constitutional "confiscation" in rate cases. In this line of decisions were: Willcox *v.* Consolidated Gas Co. (1909) 212 US 19; the Bluefield Water Works & Improv. Co. *v.* West Virginia Pub. Service Commission case, PUR1923D 11; the Georgia R. & Power Co. *v.* Georgia R. Commission case, PUR1923D 1, which upheld "reproduction cost"; and McCardle *v.* Indianapolis Water Co. PUR1927A 15, which has been called the "high watermark" of the fair present value doctrine in federal decisions on state rate case appeals. Since 1929 we have had the following important cases, which have appeared in PUBLIC UTILITIES FORTNIGHTLY, either in full text or by way of digest for later publication in P.U.R. volumes. (The preprinting of full text of decisions in the PUBLIC UTILITIES FORTNIGHTLY was discontinued in 1955 in order to permit expanded digest coverage.)

1929

THE most famous decision of this year was the O'Fallon case, which blocked an attempt by the Interstate Commerce Commission to fix railroad rates based on spot valuation as of a given date. Present fair value, said the court, rather than past value at the present or an intermediate period, should be given recognition. In this year the Pennsylvania commission made the first attempt to regulate airplane carriers in Re Battlefield Airways, Inc. PUR1929A 476.

Also in this year the New Jersey supreme court, in Sixty-seven South Munn *v.* Public Utility Commissioners, PUR1929E 616, upheld the refusal of a utility to sell electric current to apartment house owners for purposes of "submetering" or resale at retail to tenants. The Missouri supreme court, in Rogers Iron Works Co. *v.* Public Service Commission, PUR1929E 293, upheld the refusal of a water utility to serve a business competitor. In People ex rel. Potter *v.* Michigan Bell Teleph. Co. PUR1929B 455, the Michigan supreme court said that the old legal doc-

trine that the corporate entity may not be disregarded except in cases of fraud should be liberalized in the case of relations between a separate utility and a holding company controlling it. The court said that regulation requires complete liberty of action in examining such intercorporate relations.

In this year the Supreme Court in the Standard Oil case, PUR1929A 450, outlawed a Tennessee statute attempting to regulate gasoline filling stations as public utilities. Finally, in this year an attempt was made in federal district court to require the Massachusetts commission to fall in line with other state commissions in giving recognition to reproduction cost in fixing rates (Worcester Electric Light Co. *v.* Attwill, PUR1929B 1). The case was never appealed further, however, and Massachusetts, together with California, persisted for years in refusing to have anything to do with the reproduction cost theory. Today most of the commissions are in line with Massachusetts and California on this.

1930

THE Wisconsin commission was the first to take notice of the increasing agitation against indiscriminate merchandising of appliances by operating utility companies. The Wisconsin commission in Re Accounting for Merchandise and Appliance Sales, PUR1930E 204, laid down the requirement that such activity should be strictly segregated from operating utility accounts. In United Railways & Electric Co. *v.* West, PUR1930A 225, the Supreme Court held that accrued depreciation, as well as the rate base itself, must reflect consideration of present fair value as well as original cost. The Supreme Court in Smith *v.* Illinois Bell Teleph. Co. PUR1931A 1, took its first step back in the direction of permitting original cost rate base considerations to remain undisturbed. The principal issue, however, was the operating expense relation of the Illinois Bell Company and its system affiliate.

1931

IN Re Rates and Rate Structures of Corporations Supplying Electricity in New York city, PUR1931C 337, the New York Public Service Commission made one of the most comprehensive analyses of electric rate theories presented in any regulatory opinion.

In the People *v.* Swena case, PUR1931C 149, the Colorado supreme court ruled that the Colorado Public Utilities Commission had no authority to punish for contempt.

1932

THE Wisconsin commission, in Re Wisconsin Teleph. Co. PUR1932D 173, made the first formal attempt to apply the old "value of service to consumers" standard in fixing rates. The case dragged along in the state courts several years and was finally overruled. A more successful attempt, locally at least, was made the same year by the Maine supreme judicial court in Gay *v.* Damariscotta-Newcastle Water Co. PUR1932E 300. In Stephenson *v.* Binford, PUR1933A 440, the Supreme Court upheld state regulation of both "contract" as well as common carriers by motor truck.

1933

THE first real break by the Supreme Court from its previous rigid position requiring recognition of present fair value of utility rate making came in Los Angeles Gas & E. Corp. *v.* California R. Commission, PUR1933C 229. The court said that it did not sit as a board of review to pass on methods of regulatory bodies in the absence of evidence that rates finally

fixed were actually confiscatory. This case foreshadowed the more sweeping decision in the Hope Natural Gas case eleven years later.

The antimerchandising agitation reached its climax in this year when the Kansas supreme court declared unconstitutional a statute prohibiting utilities from selling appliances (Capital Gas & E. Co. *v.* Boynton, PUR1933D 435). The U. S. Supreme Court refused to review. Only one other state, Oklahoma, had passed such legislation, although several had considered it. The more co-operative policies followed by utilities relating to independent appliance dealers stifled the agitation.

In Montana Pub. Service Commission *v.* Great Northern Utilities Co. PUR-1933C 225, the Supreme Court upheld a Montana commission order prohibiting the charging of competitive rates established by a utility engaged in a rate war which, the commission found, were so low as to be "unreasonable" and likely to impair the ability of the utility to continue service.

1934

THE Supreme Court took another step in the direction of leaving regulatory rate-fixing methods in the hands of the regulatory commissions in Lindheimer *v.* Illinois Bell Teleph. Co. 3 PUR NS 337. The court found that where the telephone company was charging rates sufficient to keep its property and reserves in good shape while paying 8 per cent dividend on common stock, the claim of confiscatory methods used by the commission in fixing such rates would not be sustained.

In Nebbia *v.* State of New York, 2 PUR NS 337, the Supreme Court began to liberalize its earlier doctrines restricting rate regulation to traditional public utility business. In this case a New York law fixing the price of milk was sustained.

1935

IN West *v.* Chesapeake & P. Teleph. Co. 8 PUR NS 433, the Supreme Court in a split opinion probably paid its last respects to the earlier series of cases stemming from Smyth *v.* Ames, which places emphasis on present fair value in fixing utility rates. The majority of the court held in the Chesapeake case that the Maryland commission could not take a short cut in fixing the telephone company's rate base through the use of commodity price indices in bringing up to date an original cost valuation. The decision did not, however, outlaw the use of indices in valuation work, but simply found fault with general commodity price indices being applied to such specialized property as utility plant.

In Corporation Commission *v.* Cary, 12 PUR NS 161, the so-called "Johnson Act," which requires state commission rate cases to be appealed in state rather than federal courts, got its first judicial construction. The court found that the congressional limitation did not apply where a state law (in this case Oklahoma) did not provide exhaustive appellate relief in the state courts.

1936

THE Tennessee Valley Authority survived its first judicial attack in a collateral proceeding brought by a security holder of the Alabama Power Company. The Supreme Court in Ashwander *v.* Tennessee Valley Authority, 297 US 288, did not, however, decide the merits of the constitutional issues raised except to say that the federal government may lawfully sell power incidentally generated at federal projects. In Northwestern Bell Teleph. Co. *v.* Nebraska State Railway Commission, 13 PUR NS 467, the court upheld the use of a composite depreciation rate.

Also in 1936, the Supreme Court made an important distinction between accounting regulation and rate regulation in American Teleph. & Teleg. Co. *v.* Federal Communications Commission, 16 PUR NS 225. It ruled that accounting regulations established by a regulatory body are entitled to a strong presumption of validity and upheld an FCC requirement that differences between original cost and investment in plant should be placed in an adjustment account for later disposition. Although it was not realized at the time, this decision paved the way for subsequent more sweeping orders of the Federal Power Commission in the field of accounting regulation.

In the Wisconsin State Rural Electrification Co-ordination Committee case, 17 PUR NS 31, the Wisconsin commission required an electric utility in Wisconsin to furnish wholesale service to REA co-ops at reasonably low rates and under proper contract terms for such service. Other commissions have generally followed this precedent, making wholesale rates to co-ops generally quite attractive.

1937

In Alabama Power Co. *v.* McNinch, 21 PUR NS 225, the U. S. court of appeals for the District of Columbia upheld FPC issuance and regulation of federal water-power licenses under the Federal Power Act, including accounting requirements (at original cost).

1938

In Alabama Power Co. *v.* Ickes, 21 PUR NS 289, the Supreme Court upheld the validity of federal loans and grants(under the Public Works Administration program) in aid of public power plant construction by cities, states, and other public bodies. The decision was based upon the technical disqualification of the privately owned power company to bring suit. In Electric Bond & Share Co. *v.* Securities and Exchange Commission, 22 PUR NS 465, the court set up the SEC in the business of regulating holding companies under the Public Utility Holding Company Act by requiring such companies to register under the act. It left for later decision (scheduled for argument in the October term of 1945) the issue as to the validity of the so-called "death sentence" or § 11.

In Consolidated Edison Co. of New York *v.* National Labor Relations Board, 26 PUR NS 161, the Supreme Court held that a New York city gas and electric utility could be engaged in interstate commerce for purpose of labor regulation by a federal board while at the same time obviously engaged in only intrastate commerce for purposes of utility regulation by the New York state commission.

1939

In Driscoll *v.* Edison Light & P. Co. 28 PUR NS 65, the Supreme Court upheld "temporary" or so-called "emergency" rate regulation under a Pennsylvania statute, where expeditious temporary rate orders are subject to subsequent adjustment after more deliberate regulatory inquiry. In Rochester Telephone Corp. *v.* Federal Communications Commission, 28 PUR NS 78, the court ruled that corporate control of a utility operating company need not depend on majority ownership of common stock. This important ruling set the stage for later decisions by the SEC and FPC holding that the relationship of parent and subsidiary could exist where stock control was very much less than majority ownership. In Tennessee Electric Power Co. *v.* Tennessee Valley Authority, 27 PUR NS 1, the court once more refused to pass on the constitutionality of a federal agency being in the electric power business. By dismissing the

suits of private utility companies as being improper parties to raise such question, the court virtually closed the door on any constitutional test on the merits of this question.

1940

THE Supreme Court asserted the potential jurisdiction of the federal government over virtually every river and stream in the United States in Federal Power Commission *v.* Appalachian Electric Co. 36 PUR NS 129, better known as the "New River case." The issue raised here was whether the FPC under the licensing provisions of the Federal Power Act had authority to regulate a hydroelectric structure upon a river which was admittedly not navigable in fact. A majority of the court held that the test of navigability for purposes of establishing constitutional jurisdiction of the federal government was not limited by navigability in fact, but by whether a stream, now nonnavigable, might in the future be made navigable through physical improvements, or whether a structure upon a nonnavigable tributory "affects the navigability" of a navigable stream.

Legal observers have pointed out that the implication of this decision, carried to its logical conclusion, would establish FPC jurisdiction over any stream or creek however small which crosses a state line, or connects with another body of water crossing a state line.

1941

THE Federal Power Commission, having been so successful in having its jurisdictional position regarding nonnavigable streams upheld in the New River case (noted above), began reaching out for more jurisdiction over electric power operations previously considered intrastate commerce subject to the exclusive control of state commissions. In this, the FPC was later equally successful in the Supreme Court, but it also succeeded in stirring up a rebellion among the state commissions which is still going on in the form of attempts by the National Association of Railroad and Utilities Commissioners to have the Federal Power Act amended to protect state commission jurisdiction from alleged federal encroachment.

Probably the most important case of this kind began in 1941 with the FPC decision in Re Hartford Electric Light Co. 37 PUR NS 193. The commission here held that electricity generated by a company in one state delivered to another company for transmission across the state line for resale is transmitted and sold in interstate commerce, notwithstanding the fact that title to the energy was claimed to change at the point of delivery within the state.

1942

THE most important decision of this year was regarded by legal analysts as being the "precursor" of the famous Hope case decided two years later. This was Federal Power Commission *v.* Natural Gas Pipeline Co. 42 PUR NS 129. Here the majority of the court decided that the federal Constitution does not bind rate-making bodies to the service of any single formula or combination of formulas. This was interpreted by four members of the court (Black, Douglas, Murphy, and Frankfurter) as meaning that Smyth *v.* Ames had been overruled in effect. But the majority opinion by Chief Justice Stone simply upheld the FPC rate reduction order, in this case, on the negative grounds that the company had been unable to show that the commission's order produced an arbitrary result or that fair hearing had not been permitted. The

issue of Original Cost *versus* Reproduction Cost was also clouded, in this case, by the fact that the FPC had actually accepted the company's estimate on reproduction cost for purposes of its order.

1943

IN this year the Supreme Court upheld the jurisdictional ambition of the FPC over any power moving across state lines, even though under circumstances previously regarded as intrastate commerce, subject to state commission jurisdiction. In Jersey Central Power & Light Co. *v.* Federal Power Commission, 48 PUR NS 129, the court upheld the assertion of FPC jurisdiction over affairs of an electric company which operated physically entirely within the state of New Jersey, solely on the basis that it had a state line connection for the mutual interchange of power on a "slop-over" basis with another electric company operating on the New York state side of the line. The same year the Supreme Court refused to review the decision of the U. S. circuit court of appeals in Hartford Electric Light Co. *v.* Federal Power Commission, 46 PUR NS 198, which the FPC began in 1941 (noted above under that year).

1944

BY all odds the most important regulatory decision of this year, or probably of this decade, was the Hope Natural Gas decision, 51 PUR NS 193. In this case the FPC, in ordering the rate reduction, had refused point blank to consider any evidence on present fair value other than original cost. While the court still declined to overrule Smyth *v.* Ames, in so many words, the Hope Natural Gas decision virtually sterilized the earlier (1898) precedent, by turning over complete rate-making authority to the regulatory commissions, subject only to judicial review, where the "end result" could be affirmatively shown to injure the company's financial ability to continue service. This decision set the state and federal commissions up as virtual masters of regulation.

Critics of the decision have called it a "Pontius Pilate" decision, in which the court abdicated judicial review of any further utility rate case except under almost prohibitive conditions. Admirers of the decision, on the other hand, called it the "Magna Charta" of utility regulation, freeing the regulatory commissions from judicial interference which had plagued them since Smyth *v.* Ames. One important point of this decision was impliedly modifying, if not overruling, the "over-the-dam principle" the court had laid down back in 1922 in the Galveston case (to the effect that neither past deficits nor past profits should have any bearing on the determination of a reasonable rate as of the date of regulatory inquiry).

A special opinion by Justice Jackson, in which he suggested that natural gas regulation might also depend on "end use" by the consumers, has given rise to important discussion now going on in regulatory circles on the subject of the relationship between utility regulation, as such, and the conservation of wasting natural resources.

In the Washington Gas Light case, 52 PUR NS 257, the majority of the Supreme Court held that the Office of Price Administration, in the exercise of its wartime price control powers, had no authority to control rate case procedure or deliberations by public utility regulatory commissions.

1945

THE Hope Natural Gas decision brought forth some strange fruit in the form of an FPC rate order which proceeded to assume jurisdiction over natural gas-gathering and -producing fa-

cilities, notwithstanding express prohibition in the Natural Gas Act. In the Canadian River Gas Company case, 58 PUR NS 65, four dissenting justices (Stone, Frankfurter, Reed, and Roberts) are shown to be apparently uneasy over this liberty of action assumed by the FPC, based on its regulatory independence under the Hope case.

A fifth member of the Supreme Court swung the balance in favor of affirming the FPC but indicated his own willingness to reverse Hope Natural Gas if the other justices were disposed to do so, saying "This [Hope] case introduced into judicial review of administrative action the philosophy that the end justifies the means. I had been taught to regard that as a questionable philosophy, so I dissented and still adhere to the dissent."

1946

THE U. S. Supreme Court in North American Co. *v.* Securities and Exchange Commission, 62 PUR NS 257, upheld the constitutionality of the Holding Company Act, specifically § 11 (the so-called "death sentence"). Under this provision a holding company may be required to divest itself of control of scattered operating subsidiaries. The court held that this did not violate the Fifth Amendment (Due Process) even though such holding company operations did not involve economic evils.

1947

THE Wisconsin commission in the so-called "Two Rivers case" (City of Two Rivers *v.* Commonwealth Teleph. Co.), 70 PUR NS 5, took the position that it was not required to make any rate base finding for purposes of rate making —that is, to specify the rationale of its computation.

1948

THE Wisconsin supreme court, 73 PUR NS 97, upheld a lower court ruling in the so-called "Two Rivers case" which reversed the state commission's attempt to fix a telephone company's rates without determining a definitely expressed rate base.

The New York court of appeals upheld the right of the Rochester Gas & Electric Corporation, 73 PUR NS 43, to obtain approval of the state commission for a security issue without conditions as to depreciation and accounting reforms which the commission could not require by direct order.

1949

THE U. S. Supreme Court in a Milwaukee streetcar strike test case declared invalid a Wisconsin law banning utility strikes. This decision, which involved the Wisconsin Employment Relations Board, 88 PUR NS 165, did not automatically invalidate all state laws which seek to prevent utility strikes. In fact, several are still on the statute books; and a Missouri state law of this kind is scheduled to be reviewed by the highest court in the fall of 1959.

But the Wisconsin decision did put a damper on any new state legislation along this line and placed existing state laws under a cloud. The decision was based on the "paramount authority" of the federal government (under the Taft-Hartley Act) to deal with such controversies, thereby pre-empting the field as far as state legislation is concerned.

1950

THE most important federal court decision was the U. S. Supreme Court ruling in the East Ohio Gas Company case, 82 PUR NS 1, handed down January 9th, with two justices dissenting. The

court held that the Federal Power Commission, under the Natural Gas Act, may regulate the accounts of a company operating distribution pipelines in intrastate commerce, where the supply comes from out of the state. The decision provoked critical reaction in Congress and among the state commissions. It was later modified by the Hinshaw amendment to the Natural Gas Act. Another important case was a third U. S. circuit court of appeals decision upholding the FPC in virtually every phase of its rate-making power under both Part I (hydroelectric licenses) and Part II (interstate rate fixing) of the Federal Power Act. This was the so-called Safe Harbor Water Power Corporation case, 84 PUR NS 344. Further review was denied.

1951

THERE were two outstanding court decisions during this year. Most important was the unanimous decision of the fourth U. S. circuit court of appeals (91 PUR NS 366) upholding a license granted by the Federal Power Commission to a private utility company to develop a hydroelectric site on the Roanoke river in Virginia, notwithstanding the opposition of the Interior Department. The U. S. Supreme Court upheld the Michigan Public Service Commission in its order requiring the Panhandle Eastern Pipe Line Company to apply for a state certificate of convenience and necessity before selling direct to an industrial customer (Ford Motor Company) in an area (Detroit) already served by a regulated utility, 89 PUR NS 1.

1952

THE FPC made news and stirred up the most controversy in rate regulation. Climaxed in the Northern Natural Gas Company decision of June 11, 1952, 95 PUR NS 289, was the FPC ruling which apparently gave controlling weight to past cost of capital in fixing the rate of return. Several state commissions followed suit in telephone rate cases. The FPC cost-of-money theory was denounced in the gas industry as dooming pipeline companies to a ceiling on earnings which would forbid future expansion. It was credited in financial circles with the market break in natural gas securities in the late summer. FPC spokesmen denied that the Northern Natural Gas ruling was a threat or anything particularly new—but pressure for revision or modification of the cost-of-money theory as a controlling factor in rate of return continued to be a most lively topic in the field of rate regulation.

Also, in the Northern Natural Gas case, FPC decided against recognizing state-fixed minimum prices for natural gas production as a measure of cost of service for a pipeline operating in interstate commerce.

1953

THE U. S. Supreme Court split (6 to 3) in the Roanoke Rapids (Virginia) case, 345 US 153, 97 PUR NS 129, upholding the authority of the Federal Power Commission to license private company hydro developments notwithstanding conflicting plans of the Interior Department for direct federal construction. Highest state court decisions witnessed an increasing tendency to challenge strict adherence to original cost rate making. Three Bell system telephone rate cases in Illinois, Maine, and Maryland required recognition of current cost. The Illinois Commerce Commission decision in the Peoples Gas Light & Coke Company case, 99 PUR NS 361, also required recognition of inflationary developments in treat-

ing original investment from the standpoint of depreciation.

1954

THE gradual trend away from strict cost base rate making continued. The supreme courts of Delaware and North Carolina confirmed the establishment of current fair value in the rate bases of two telephone companies. The Maine supreme court rebuked the state commission for disregarding the present value factor in the Central Maine Power Company case, 7 PUR3d 1. (Maine changed back to the cost base standard by statute in 1958.) The U. S. Supreme Court refused to review a decision of the eighth U. S. circuit court of appeals (CA 8th 1954) 6 PUR3d 97, questioning the use of "cost of money" as the sole or controlling factor in fixing the return allowance for the Northern Natural Gas Company. The FPC itself during this year moved away from its former position on this point.

1955

PROBABLY the most important rate case of the year 1955 was that of the New York appellate division decision (8 PUR3d 229) requiring the state commission to consider current value in fixing rates for the New York Telephone Company. The only other state where a definite shift was made to current value was a lower court decision in Iowa, fixing gas rates in Fort Dodge (9 PUR3d 494). But in two states, Virginia and Florida, "year-end" rate bases were confirmed, in an effort to reduce regulatory lag in granting rate relief. In two other state cases recognition of purchase price—to the regulated utility—in valuing utility property for rate making, differing from actual original cost, was approved by the highest state courts of Virginia (Virginia Electric & Power Company) and Wisconsin (Milwaukee Transit Company).

As the year ended, a decision of the U. S. circuit court of appeals for the District of Columbia, already noted, setting aside FPC recognition of market price in City of Detroit *v.* Federal Power Commission (Panhandle Eastern Pipe Line Company), 11 PUR3d 113, 230 F2d 810, in valuing gas production facilities, threatened to complicate an already exceedingly troubled area of rate making.

1956

THE New York commission was directed by the highest state court (12 PUR3d 399) to reopen hearings on the New York Telephone Company's $68 million rate increase and to give weight to evidence on replacement costs—in telephone rate cases only—under a statute which the legislature has consistently refused to change. The Louisiana Public Service Commission (14 PUR3d 146) rejected a Southern Bell Telephone & Telegraph Company request for a rate increase of more than $6 million, calling instead for a rate reduction by nearly $4 million yearly. It was the first postwar ruling on any Bell rate case resulting in a rate decrease. The Southern Bell Company took the case to the courts on appeal from the commission's decision.

1957

DESPITE two vetoes of previous attempted legislation a revival of determination to seek changes in the Natural Gas Act in Congress was the reaction of natural gas pipeline and producing interests to the decision of the U. S. circuit court of appeals for the District of Columbia in the Memphis case (18 PUR3d 456). In this decision the court ruled that after nineteen years the FPC has wrongfully been construing that part, § 4(d), of the

act which authorizes the filing of increased rates. The court held that unless a pipeline company, serving distributors under contract, has a fully negotiated consent agreement with all of its customers to a rate increase it may not file under § 4(d), but must proceed under the slower and more uncertain method of obtaining a complete FPC review of a proposed rate increase under § 5. Meanwhile, the pipeline is deprived of the relief of obtaining an effective rate increase under bond after five months of a suspended increase.

1958

With respect to rate cases, the year 1958 was marked by considerable activity. Two more states—Alabama and Missouri—shifted from strict original cost rate base practice to recognition of reproduction costs on a partial basis. In both instances the switch over was the result of decisions by the Alabama and Missouri supreme courts, respectively. The state commissions had sought to follow previous original cost rate base practice. The Missouri case involved a water company; the Alabama case involved Southern Bell Telephone & Telegraph Company. The number of rate cases at both the state commission and appellate court levels was unusually high.

1959

The fifth U. S. circuit court of appeals, in a decision last February involving the Forest Oil Corporation (opinion by Judge Tuttle) apparently ignored a previous ruling by the U. S. circuit court of appeals for the District of Columbia (City of Detroit *v.* Federal Power Commission, 11 PUR3d 113) to the effect that the commission must at least consider a gas company's rate base as a "point of departure" before using any other formula of rate making.

The court sustained an appeal by Forest Oil from a commission order (3 to 2) which denied the producer the advantage of a contract field price for Louisiana Gulf coast gas at 16 cents per thousand cubic feet. This meant that the producer would have to take a price of less than 8.8 cents.

The FPC majority opinion (following the earlier court ruling) said that it was "essential" that the conventional method of rate making be used at least as a "point of departure." The fifth U. S. circuit court of appeals has turned the case back to the FPC for another look.

Since June, 1954, there had been no regulatory ruling that fixed industry-wide guide lines for setting reasonable gas producer rates. That was when the U. S. Supreme Court decided the Phillips case which resulted in all independent gas producer rates being placed under FPC regulation.

Last April a new rate-making formula—based on cost of service—has been advanced by FPC Examiner Joseph Zwerdling as a result of his findings in the FPC retrial of the same Phillips Petroleum rate case. Under this plan Zwerdling would allow Phillips to increase its rates by $14 million annually. This is $35 million less that the company claimed was justified by rising production costs. Hence officials of Phillips took the position that the examiner's ruling fell "far short" of what they think is necessary to provide adequate incentive to explore for "needed gas supplies."

The March of Events

National Fuel Policy Urged

A PRACTICAL and equitable energy policy for the best use of the nation's fuels should be formulated, William R. Connole, vice chairman of the Federal Power Commission, told the forty-second convention of the National Coal Association last month.

He urged the creation of an energy study board composed of men with broad backgrounds in the various energy fields and with demonstrated judicial temperament and proved devotion to the general welfare of the whole country rather than just one segment of it.

He said the board should study all forms of energy—not just one or two. The study should be objective, Connole declared, and use the facilities of industry and independent research groups as well as government, and should employ public hearings and task force studies. An independent judgment of the affected views could be addressed to the Congress and be used as background for confirmation of, or changes in, existing statutes, principles of taxation, governmental policies, both national and local, antitrust policies, regulatory commission policies, and every other aspect of the public economy involved in the business of energy use, the FPC commissioner pointed out.

Direct Electricity Device

GENERAL ELECTRIC COMPANY scientists have created a "gaseous fuel cell" in which the chemical reaction of hydrogen and oxygen generate low-voltage electric current. The device is compact and lightweight and has possibilities of generating electricity more efficiently than by conventional methods.

Since the fuel cell produces low-voltage direct current, however, it will most likely be used for special applications rather than to produce large quantities of power. Military and space vehicles might make use of it because of its simplicity, reliability, and portability. The "gaseous fuel cell" is a hollow plastic disc about a half-inch thick and three inches in diameter. Hydrogen is fed into one of two interior chambers, oxygen into the other. After a chemical breakup—which produces the electric current—hydrogen and oxygen combine to form water.

Nuclear Power Project Contracts Signed

THE president of Carolinas Virginia Nuclear Power Associates, Inc., last month signed three additional contracts essential to the completion of the first nuclear power project in the Southeast.

Erwin H. Will, chairman of the exec-

utive committee of the Virginia Electric & Power Company and head of the four-company group, told CVNPA directors, meeting in Raleigh recently, that the three new contracts are: (1) research and development of the nuclear power plant by Westinghouse Electric Corporation; (2) lease of the camp site at Parr Shoals, South Carolina, from South Carolina Electric & Gas Company; (3) steam purchase agreement, South Carolina Electric & Gas Company, which will use the nuclear-produced steam to generate electricity.

California

Commission Bills Reported

THE California senate has received a favorable report from its finance committee on a bill which would establish an independent chief administrator of the public utilities commission. He would be appointed by the governor and would be reponsible for the investigational and procedural functions of the commission.

The measure was the result of an interim committee investigation of the decision-making processes of the commission. Senator Dolwig of San Mateo county said:

> We found in two important respects the procedures of the commission have fallen short of the best features of contemporary administrative procedures. The civil service staff in many instances usurped many of the decision-making functions constitutionally delegated to the commissioners. Although 95 per cent of the commission cases are heard by examiners alone, the examiner's recommendations are almost never made public.

A commission member, Everett C. McKeage, opposed the bill and contended its provisions were unconstitutional.

A bill to raise the pay of members of the state public utilities commission from $19,000 to $21,500 a year was favorably reported to the state assembly last month by its public utilities and corporations committee after earlier passage by the state senate.

District of Columbia

Monorail System Suggested

O. ROY CHALK, president of the D. C. Transit System, Inc., in Washington, D. C., has proposed a 116-mile monorail system as a cure for the national capital city's transportation woes.

He told a Senate District subcommittee that as a result of engineering improvements, a monorail system could be operated at speeds of 60 miles an hour. The cost would be only half as much as a $500 million bus and electric train system which is soon to be presented by transportation planners for the area.

The monorail system would be the solution to the mass transit tangle of the nation's capital, Chalk asserted, and promised that the D. C. Transit System, Inc., would build it should the idea be approved.

Relocation Costs Refused

THE Washington Gas Light Company in Washington, D. C., has been refused compensation for the cost of relocating gas mains in an urban renewal area of the city.

District commissioners rejected the request after consulting with the Federal Housing and Home Finance Agency, which approves local urban renewal projects.

FHFA said it does not allow reimbursement to private utilities to be included in the cost of urban renewal projects, unless such payments are required by local law.

Washington Gas Light president, Donald Bittinger, said the amount spent by his company would run into six figures and that the cost eventually would have to be passed on to customers as a company operating expense.

Florida

Florida Gets Natural Gas

THE last major population area in the United States to receive natural gas service is the state of Florida where a 1,447-mile pipeline has recently been completed. The line originates in southeast Texas and has a capacity of 282 million cubic feet of gas a day.

It is expected that the pipeline will be in full operation by the end of July. It will be operated by two subsidiaries of the Houston Corporation, Coastal Transmission Corporation and Houston Texas Gas & Oil Corporation.

The estimated cost of the new pipeline system is about $164 million.

Illinois

Ask for Gas Sale OK

ABOUT 64,000 homes on Northern Illinois Gas Company's residential waiting list will be allowed to heat with gas upon completion of Midwestern Gas Transmission Company's 360-mile pipeline from Tennessee.

The Northern Illinois Company has also been asking the Illinois Commerce Commission for approval to make natural gas available in 1959 on a limited basis for heating multiunit dwellings, schools, churches, municipal buildings, plus commercial and industrial establishments. This will be the first time in thirteen years, if approved, that the company has been able to furnish natural gas for heating these types of customers since a restriction order went into effect. When present and proposed permits are acted upon, company president Marvin Chandler stated, about 390,000 homes in Northern Illinois' 20-county service territory (about 60 per cent of all residential customers) will have natural gas heat.

The company is already negotiating with suppliers for 50 to 100 million cubic feet additional gas for the 1960-61 winter.

Chicago Area Gas Refunds

THE Peoples Gas Light & Coke Company of Chicago is refunding approximately $4.5 million to Chicago users of natural gas in the form of credits on bimonthly gas bills.

Typical refunds by the company will be $1.90 to customers who use gas for cooking; $2.80 to those using gas for cooking, automatic water heating, and refrigeration; $6.80 to space-heating customers who also use gas for other purposes; and $4 to small commercial and industrial users.

The amount to be refunded resulted from a reduction in rates by a pipeline company supplier of the Peoples Gas system.

It is expected that the refunding process will consume about sixty days. The $4.5 million amount that Peoples Gas

will return to its customers represents the company's portion of about $10.6 million which Natural Gas Pipeline Company of America, a subsidiary, received from one of its suppliers, Colorado Interstate Gas Company.

Indiana

More Gas Home Heating

MORE than 25,000 residents of northern Indiana are destined to receive gas next winter for home heating following approval by the public service commission of a petition by the Northern Indiana Public Service Company. The commission authorized the issuance of heating permits to 45,000 new home-heating customers over the next three years.

The petition was made possible by Northern Indiana's ability to obtain an additional supply of gas from the Midwestern Gas Transmission Company of Houston, Texas. For the first year, the Indiana utility will receive about 115 million cubic feet of gas a day additional, 145 million cubic feet a day the second year, and 200 million cubic feet a day the third year, and continuing at that rate thereafter. The utility has a 20-year contract with Midwestern.

With the addition of 25,000 home-heating customers, Northern Indiana Public Service Company will be serving about 100,000 home-heating customers by the end of 1959.

Kentucky

Gas Rate Hike Asked

TEXAS GAS TRANSMISSION CORPORATION of Owensboro, Kentucky, has filed a proposed $6,986,000 annual wholesale natural gas rate increase with the Federal Power Commission and has asked that it replace one recently filed by the company for $5,423,000.

Texas Gas explained that the substitution of the higher rate application was necessary to cover an increase proposed by one of its suppliers, Texas Eastern Transmission Corporation, of Shreveport, Louisiana, which would result in a $2.1 million annual increase in fuel costs.

In addition to higher gas costs, the company contended that its earning experience since the last rate increase, when it was allowed 6 per cent return, indicated that 6½ per cent was the amount it needed to realize a reasonable profit.

Louisville Gas & Electric Company, which buys gas from Texas Gas Transmission Corporation, is expected to intervene in the case and protest the higher rates.

Louisiana

Gas-gathering Tax Ruled Unconstitutional

A DISTRICT court in Louisiana has ruled that the state's 2 per cent gas-gathering tax—now under suspension by legislative order—is unconstitutional. The ruling came as a result of suits against Louisiana's revenue collector, Robert Roland, by Southern Natural Gas Company, Bel Oil Corporation, Calcasieu Paper Company, Inc., and Humble Oil & Refining Company, affiliate of Standard Oil Company (New Jersey).

The two cents a thousand cubic feet gas-gathering tax was declared unconstitutional by Judge Lindsey, who said the law was invalid because it violated a section

of the state Constitution providing "no further or additional tax or license shall be levied or imposed upon oil, gas, or sulphur leases other than authorized severance taxes."

The state will file an appeal to the Louisiana supreme court in the case, according to revenue Collector Roland.

The state legislature, in a special 1958 fall session, suspended the gas-gathering tax and substituted for it an additional two-cent gas severance tax. This was done because it feared the former tax would be ruled unconstitutional and it did not want to lose the revenue produced by the tax.

Michigan

Rate Boost Granted

THE public service commission has granted an increase in rates which will provide the Consumers Power Company with $6,788,495 more annual revenue.

However, federal taxes will reduce this gross amount by $3,530,000, according to the company's president, Dan E. Karn.

The average monthly residential bill will increase from $8.45 to $9.04 a month. The company's 749,999 residential and farm electric customers, each using an average 350 kilowatt-hours a month, will pay $5,036,554 of the increase, while 89,867 commercial and small industrial customers will pay $1,018,027, and 523 large industrial customers will pay $717,736.

New Jersey

Commission Fees Raised

THE New Jersey Board of Public Utility Commissioners has announced a new schedule of fees for its services which it expects will net the commission $350,000 to $500,000 a year. The old schedule of fees brought in only $75,000 a year.

Under the new setup, according to Commissioner Ralph L. Fusco, the state could derive as much as $13,245 for a commission audit of a company's annual report. Previous fees ranged from $10 to $25 for such work. Rate increase applications formerly cost $10 to $500. Under the new schedule, charges ranged from $25 to $15,421.

A bill was recently signed by Governor Robert B. Meyner which put the new rate schedule into effect.

New York

Consolidated Edison Gets Rate Boost

A FLAT increase of 25 cents for its initial monthly charge for electric service has been granted to Consolidated Edison Company of New York by the state public service commission. The new base charge is $1.25 instead of $1. The authorization means that Consolidated Edison can raise its electricity rates for nearly all of its 2,788,000 customers in New York and Westchester county.

Coincidentally with the rate boost OK, the commission ordered a system-wide investigation of the company's rates. The last such investigation of the company's electric rates, concluded in 1952, resulted in a general 10 per cent reduction, and a saving of some $21 million for Consolidated Edison's customers. The present 25-cent-a-month increase allowed the

company, according to the commission, will yield $8.4 million more a year in revenue, but Consolidated Edison will net only $3,891,000 after taxes.

In voting the increase, the commission split 3 to 2, because some commissioners felt the rate boost should be deferred pending the outcome of the rate investigation. Those in favor of an immediate minimum increase believed the company had demonstrated its need for additional revenue.

State Transit Study Ordered

A BROAD study of New York's future transportation needs and how to meet them is the task assigned to the state's new transportation chief, Lewis K. Sillcox of Watertown, by Governor Rockefeller.

The governor said he believed the broad outlines of such a statewide transportation survey could be completed this year, so that recommendations could be made to the 1960 legislature. The survey is to be similar to those studies ordered in state business and government, state assistance to localities, power resources, and education.

The state Office of Transportation's chief is a veteran railroad man and has been first vice president of the New York Air Brake Company, a railroad supplier. He also has lectured regularly on transportation at many universities, including Harvard and Yale. Mr. Sillcox is seventy-three years old.

North Carolina

Court Orders Power Rate Reduction

THE North Carolina supreme court has, in effect, directed the Carolina Power & Light Company to reduce rates by nearly $1 million annually to some 38 industrial customers.

The court ordered the state utilities commission to put into effect a July 31, 1958, order amending the so-called "coal clause" which serves as the basis for determining industrial electric power rates. The commission's order set the computing figure for electric rates at $7 per short ton of coal instead of $6, which was the basis when the rate hike was granted the power company in 1948.

The rates were appealed in 1958 by the industrial firms, largely textile plants, banded into the Carolinas Committee for Industrial Power Rates and Area Development, Inc. The group charged that Carolina Power's industrial rates were "unjust and discriminatory" and were hampering industrial development.

The commission reduced the rates and the high court has affirmed its action.

Oregon

Cougar Dam Award

A $24 MILLION contract has been awarded to construct Cougar dam, near Eugene, Oregon, for the U. S. Army Corps of Engineers. The dam will be a rock-fill type embankment 1,500 feet long with a height of 445 feet. It will form a reservoir that will provide 155,000 acre-feet of storage for flood-control and multiple-purpose use. Its powerhouse will have two generating units with a total installed capacity of 25,000 kilowatts.

The Cougar dam will operate as a unit of the co-ordinated flood-control reservoir system planned for the Willamette river basin.

Pennsylvania

PUC Joins Gas Probe

THE public utility commission of Pennsylvania, because of concern over a continuing rise in gas rates, has stated it will intervene and participate in the anticipated investigation of the propriety of increases proposed by two pipeline suppliers in wholesale prices charged to 15 state utilities.

The commission's action stemmed from an official notice from the Federal Power Commission that Transcontinental Gas Pipe Line Corporation had proposed a hike of $1,710,000 to four distributing companies and that Texas Eastern Transmission Corporation seeks an increase of $4,306,000 to 13 organizations, two of which are also slated to assume the Transcontinental rate increase.

The commission is concerned because if these new wholesale gas rates are authorized by the FPC, it will mean similar increases will be asked for by the gas-distributing utilities in the state, with a consequent added cost to consumers.

Of the newly proposed increases, the largest is to Manufacturers Light & Heat Company of Pittsburgh, with an amount of $1,570,636 asked for by Texas Eastern.

Rhode Island

Denied Rate Increase

THE Newport Electric Company has been denied a general rate increase by the department of business regulation. However, it was allowed to base its future rates on a fuel escalator clause. This means that household bills will be variable to reflect the cost of oil used by the company to generate electricity. Bills will be higher if oil prices go up and will fall if the price of oil drops.

The Newport Electric Company filed two petitions in 1957. One called for a general rate hike and the other called for a tie-in fuel clause. A decision in the case was delayed in order to give public utility officials a chance to study the effects of the fuel clause.

Texas

Full Hearing Demanded

A CUT in revenue voted by Houston's city council, which reduces the revenues of Houston Lighting & Power Company, has precipitated a need for a full rate hearing. The interim rate voted, without demand charges, would pare estimated company revenue by $150,000 a year.

Vice President Frank Austin said his company will ask for what Houston Lighting & Power actually needs in the way of revenue when the hearing is held.

The rate schedule approved by the city council would increase the average light bill by 12 cents a month. The company-proposed rate would have increased the average bill 18 cents a month to offset a $771,000 yearly loss from elimination of demand meter charges.

Whether the company will seek a temporary injunction to prevent the city from enforcing its new rate is a matter of conjecture, since Vice President Austin would not comment on this aspect.

Will Seek Rate Increase

UNITED GAS CORPORATION has applied for a rate increase. How much it has asked for has not yet been reported, but it is thought likely it requested the same

amount—about 75 cents on the average monthly bill—as Houston Natural Gas Corporation was granted recently.

The mayor of Houston said he believed the rates should be the same, but indicated he would look at United's earnings first to determine if any increase at all should be granted.

Vermont

Power Interruption Problem

BECAUSE of recurring interruptions of power to Vermont from the St. Lawrence power project, power officials have agreed to temporarily reduce transmission loads to preclude further trouble.

The various power groups that are fed by the St. Lawrence project will have their loads cut until the New York State Power Authority completes an engineering study of the relay system that connects the various systems with the St. Lawrence power source.

A spokesman for the Vermont Public Service Commission expressed the opinion that the timing was off in some part of the relay system. He said a reduction of the transmission load should prevent interruptions until the timing is checked and adjusted. Power to Vermont had been interrupted on several occasions for as long as ten minutes on two successive days in the Burlington area.

Washington

Surplus Power to Sell

THE Washington state director of conservation, Earl Coe, said the Pacific Northwest will have surplus power to sell to California for the next ten years, but most of it will be available during the summer months.

At a meeting of power experts from California, Oregon, and Washington, the feasibility of constructing a power line connecting the power grid of the Pacific Northwest with that in California was discussed. It was pointed out that the line would permit shifting of surplus power from one area to another as the demand changed.

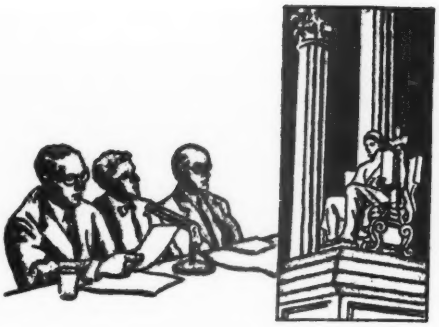
While it was shown how much power might be expected and when, no one was able to answer what the market was for the sale of surplus power in California, nor what size of high-voltage interconnecting line would be most economical for transmitting the electrical energy. The meeting was held at Olympia, Washington, in Governor Rosellini's office with the purpose of preparing the governors of the Northwest states for the time when they are consulted in connection with the possibility of an intertie line with the Bonneville Power Administration and California. Such a line is now under study by the U. S. Senate Committee on Interior and Insular Affairs. It is supposed to report back to Congress by July 15th regarding the desirability and feasibility of the BPA-California intertie power line.

Rate Boost Asked

THE Washington Water Power Company has asked for a 10 per cent rate increase, its second in its 70-year history. The last rate boost asked for and obtained was in 1953. Kinsey M. Robinson, president of the company, blamed inflation for the need for more revenue.

Robinson pointed out that even with the increase WWP rates would still be among the lowest in the nation—less than half the national average.

The new rates will bring in an estimated $3 million additional in revenue with a net of $1.3 million after taxes.



Progress of Regulation

Trends and Topics

Commission Power over Contracts Is Limited

COMMISSIONS frequently examine service contracts and exercise their regulatory functions with due consideration of contractual provisions. They cannot, however, compel a party to execute such a contract or modify it. This does not mean that they cannot require the performance of services in a different manner, or at different rates, than prescribed by contract. They do not change the contract but their orders may supersede contractual provisions.

Distinction between Judicial and Regulatory Powers

Proceedings for reformation, rescission, or specific enforcement of contracts are subject to judicial rather than commission jurisdiction. A commission is not a court and has neither the power to construe contracts nor to enforce them. This statement by a Kansas court, in a case involving the refund of a customer's contract payments (19 PUR3d 491), states the general rule applied by courts and commissions. The New York commission, in a case involving a railroad freight yard and passenger station area, said it is not the function of the commission to renegotiate a contract (16 PUR3d 92).

The New Jersey commission disclaimed jurisdiction to enforce a service extension contract on the ground that only the courts have such power (19 PUR3d 151). The Wyoming commission disclaimed jurisdiction to determine the legal rights and duties arising from an alleged promise to supply water beyond the limits of a municipal plant's operations (3 PUR3d 157). The North Dakota supreme court stated that the commission lacks jurisdiction to interpret or enforce the terms of a contract (17 PUR3d 27). The court said that so far as a co-operative and an electric company sought the construction, interpretation, and enforcement of an agreement defining their territories, the commission was without jurisdiction and had properly dismissed a complaint alleging unlawful extensions of service.

California Decision on Contract

The limitation on commission powers where a contract may be in existence

is applied in the recent decision by the California supreme court annulling a commission order which modified a contract between a water company and a land subdivider. The contract provided for an extension of water mains and services into unimproved land outside the dedicated service area. The court ruled on various questions relating to dedication to service, but the ruling on commission jurisdiction over the contract is the one pertinent to the subject of this discussion.

The court recognized that the commission might regulate the terms on which extensions should be made and it might adopt extension rules. But this did not permit the commission to compel an extension into nondedicated territory on terms other than those agreed to by the utility. Moreover, the commission could not accomplish that result by "itself proposing the terms on which the utility will contract to enter a new territory, order the utility to enter into such a contract, and then compel it to specifically perform that contract." (27 PUR3d 423.)

Review of Current Cases

Discrimination Found to Result from Conjunctional Billing and Intercommunicating Buildings Riders

THE New York commission, after an extensive investigation of proposals by Consolidated Edison Company to cancel conjunctional billing and intercommunicating buildings riders contained in rate schedules for electric, gas, and steam service, concluded that undue discrimination resulted in favor of customers taking advantage of these riders. The commission recognized, however, that elimination of these advantages made it necessary to proceed with due consideration of what is fair and equitable to customers who would be faced with large increases in charges.

Description of Riders

The conjunctional billing and intercommunicating buildings riders provide, in substance, that where buildings or parts of buildings under common ownership or leasehold meet specified requirements as to proximity, use, or physical connection, the quantities of electricity, gas, or steam supplied to the customer at such buildings or parts thereof may, as to each type of service, be combined for billing purposes. Registrations of all meters which separately measure the service supplied to the buildings or parts thereof through separate service connections and meters are added together and the customer is billed as if the total service were supplied through one service and one meter.

Since the company's service classification rates are so-called "block" or "step-down" rates, under which the charge per unit of consumption decreases with an increase in consumption, the effect of billing under either rider is, with rare exceptions, to make the total bill for services through two or more meters less than the total bill would be for the same usage if each meter registration were billed separately at the applicable rates.

The provisions of the riders do not restrict the amount of service which may be combined and the number and type of

buildings which may be included in a rider account, provided the proximity and leasehold requirements are met. For example, the largest number of various types of buildings included in single rider accounts is 163 residential buildings of a privately operated housing development, approximately 100 residential and commercial buildings, and about 40 commercial or industrial buildings. The largest commercial or industrial rider account used 3,485,000 kilowatt-hours of electricity in October, 1956, while two private housing rider accounts each used approximately 3 million kilowatt-hours in the same month.

Reasons for Adoption and Continuation Of Rider Billing

Availability and applicability of these riders in different parts of the company's territory had resulted from the fact that predecessor companies in various areas had followed different practices. There was testimony that the practice of combining, for billing purposes, the registration of meters through which electric service was supplied to buildings or parts thereof, under common ownership or leasehold, was adopted in varying forms by one or more of Con Ed's predecessor electric companies as far back as 1900, or prior to the establishment of the commission in 1907.

There was testimony that the combined billing practices were adopted principally as a measure of protection against private plant competition, although there was a difference of opinion among customer representatives as to this claim. Some of the questions arising in this case had been considered by the regulatory commission as early as 1908. The commission had criticized some aspects of conjunctional billing. A dissenting commissioner had criticized the practice in Realty Supervision Co. *v.* Edison Electric Illum. Co. of Brooklyn, PUR1917B 962.

The company was not proposing to terminate rent inclusion provisions of its tariffs, and whether or not it received benefits from such practice which outweighed the disadvantages of conjunctional billing, said the commission, was a question that did not have to be decided in these proceedings. The commission referred to Re New York Edison Co. (1935) 10 PUR NS 244.

In support of a contention that rider customers had no vested rights in rider billing, the company quoted from an earlier commission decision which approved the termination of nonresidential submetering pending further hearing and also from the judicial decision in Campo Corp. *v.* Feinberg (1952) 93 PUR NS 53.

Termination of Undue Discrimination

There was no proof as to the reasonableness of the company's unit rates (even without the benefits of combined billing) with respect to cost to serve or to factors other than cost which might be properly considered in designing rates; but the absence of such data, in the opinion of the commission, was not fatal to a determination of the issues involved in these proceedings. The commission said that rates and other provisions of the tariffs of utility companies are constantly being changed by regulatory authorities without the use of such data. The commission disagreed with a contention that the conjunctional billing and intercommunicating buildings riders should not be changed without a complete cost-of-service study.

The evidence, the commission concluded, indicated that the riders were unduly discriminatory and unjustly preferential. It did not, however, necessarily follow that they should be completely canceled

immediately in all respects. There are no precise rules or formulas for determining to what extent undue discrimination and unjust preference exist because of the riders. The testimony had been reviewed concerning competitive conditions which prompted the company to create the riders, the disappearance of such conditions in recent years, the company's promotion of business under the riders despite their contemplated elimination, the increase in charges to customers that would result from cancellation, the rewiring expense that rider customers would incur in order to avoid or curtail increased charges, and related conditions.

It appeared that immediate and complete cancellation for all customers would be unjust and inequitable. Nevertheless, the retention in one rider account of many buildings spread over several city blocks was said to be too discriminatory and preferential to be permitted to continue. The New York commission said:

"Conjunctional billing of buildings located in separate city blocks should be discontinued; the so-called hop-skip-and-jump application of the riders to more than one city block would then be prevented."

The commission concluded that reasonable time should be given to rider customers to make a rewiring or other changes they deemed desirable. The commission thought the rider should be modified so as to be available only to customers who were taking service under a rider agreement on May 31, 1959, and only as to such buildings or parts of buildings included in their agreements on that day that are on the same parcel or contiguous parcels of land within a city block; and that the riders be canceled for such customers as of June 1, 1964. *Re Consolidated Edison Co. of New York, Inc. Cases 18011-18013, May 26, 1959.*

Electric Company Loses Round in Fight to Increase Contract Rate for Power

A FEDERAL appeals court affirmed a Federal Power Commission order which refused to determine, under § 206(a) of the Federal Power Act, whether Pacific Gas and Electric Company's electric power rate contract with Sierra Pacific Power Company is unreasonable. The commission held that the factual basis adduced by Pacific in support of alleged adverse effects of the contract rate upon the public interest did not warrant further investigation.

In prior proceedings the commission had allowed a unilateral increase in the contract rate under § 205 on the ground that the increase was reasonable. It did not find that the rate was unreasonable. The commission's order was reversed on appeal, and the U. S. Supreme Court subsequently affirmed the reversal (12 PUR3d 122). It also remanded the case to the commission for such further consistent proceedings as may be considered desirable, noting that the question whether the contract rate is so low as to have an adverse effect on the public interest is for the commission to determine in the first instance.

If Pacific put forth its best case on remand, it may be assumed from the commission's action that the contract rate has not become unreasonable. *Pacific Gas & E. Co. v. Federal Power Commission, No. 14422, May 14, 1959.*

Average Rather than Year-end Figures Adopted in Electric Rate Case

THE Montana commission approved higher electric rates as proposed by Montana-Dakota Utilities Company. It concluded that a return of 5.8 per cent on a cost rate base was reasonable and not excessive. The commission observed that whether a higher return allowance was necessary to be adequate was not for it to determine since the application should be limited to the rates applied for.

The company submitted a rate base predicated upon year-end figures. Since one steam plant had been in service for only a short time prior to the end of the test period, the commission rejected this base and adopted an average cost rate base. It pointed out that with a year-end rate base the ratepayers would be required to pay a return on this large item of plant when, in fact, it was only in service for a very brief time during the annual period under consideration. The commission said that it had no quarrel with the year-end rate base, but it believed that in this instance it would distort the real results for the test period.

The commission said that it would have been proper for the company to present an exhibit based on a future test period whereby the entire steam plant could be included in the rate base and any economies achieved could also be shown. No such evidence was offered.

Trended Costs

The company also presented testimony but no exhibits on the trended original cost of its electric plant. No physical appraisal had been made in the determination of the trended cost figure. It was simply an application of the index to the original cost figures.

The commission said that while this certainly is a recognized method, it would hesitate to place entire reliance on the trended rate base. It also mentioned that assessed value has many shortcomings as a standard of valuation for rate-making purposes although it does provide some yardstick for comparative purposes.

Nonutility Properties

Those objecting to the rate increase called attention to the company's oil properties and its connections with a coal mining subsidiary and a gas pipeline company. The commission said that such matters should be examined to determine what effect, if any, these activities have upon the operation of the electric business. For example, it mentioned that it was necessary to determine that the company obtained its coal from its subsidiary at a price fair to the utility customers. But, it said, where the other activity has no relationship to the utility functions it is beyond the scope of regulation.

The commission said that a diversified business, such as the applicant's, is entitled to a fair return on each utility function. Regardless of what profits the company might obtain from its oil interests it was entitled to receive a fair return from electric operations. In fact, said the commission, an ultimate benefit would accrue to the ratepayers if the company were able to present a more attractive financial position to potential investors by reason of its oil properties and other interests.

Merchandising Operations

The commission required an adjustment in connection with the company's merchandising activities, saying that the retailing of electric and gas appliances

produces disadvantages which outweigh the load-building benefits that might be produced. The commission noted that the value of continuing the merchandising program was for the company's management to determine and that it could not impose its judgment.

But when this merchandising becomes involved in a rate proceeding, the commission has the duty to see that it does not place any additional burden upon the ratepayers. The commission concluded that the company should charge its merchandising branch for the display space it uses in the company's offices as well as for all other expenses relating to the merchandising operations. This charge was ordered to be divided among the gas, electric, and steam departments on the basis of gross revenues.

Rate Differential—Large and Small Towns

The commission pointed out that the company had classified the smaller towns in its service area as class B towns and maintained a separate and higher schedule of rates for residential customers in those towns. This rate distinction was based primarily on mere tradition. It was conceded that since most of the small towns were somewhat remote from the company's service and maintenance centers the residents of those towns were, in effect, paying a higher rate for a poorer quality of service. The commission ordered the elimination of the distinction between the two types of towns, saying that it has been its policy to achieve uniformity in rate schedules to the greatest possible degree.

Answer to Possible Criticism

The commission alluded to the possible criticism that might be generated by the fact that the company's proposed rates were higher than those charged by Montana Power Company, serving the western and central areas of the state. It said that it would be ideal if the company could maintain its rates at the same level but that it should be recognized that the company has had practically no industrial users in Montana and its territory was sparsely populated and without any metropolitan centers. Such conditions impose a larger burden upon residential and commercial users. In any event, the commission said, the company is entitled to a fair return upon its investment, and the proposed rates would not increase its return beyond what was reasonable and necessary for it to continue its utility functions and provide proper service. *Re Montana-Dakota Utilities Co. Docket No. 4537, Order No. 2750, April 24, 1959.*

Court Rules on Municipal-Telephone Company Franchise Dispute

THE West Virginia supreme court of appeals held that a telephone company which erected facilities in, upon, and over the streets of a municipality, by virtue of a municipal ordinance granting it permission to do so for a certain period, could not lawfully cease service to the public in such municipality without the consent and approval of the commission. This was so even though the 40-year period of the municipal consent by ordinance expired and was not renewed. Conversely, the municipality, without the consent and approval of the commission, could not compel the company to remove facilities from the streets of the munici-

pality. The court did not deny the police power of the city reasonably to regulate the use of its streets. However, the authority in regulating the use of streets is not unlimited. It must yield to the state's power and control over highways. *Chesapeake & P. Teleph. Co. of West Virginia v. City of Morgantown, 107 SE2d 489.*

Company Claim for Reimbursement from Purchased Gas Refund Moneys Denied

ALTHOUGH Public Service Company of Colorado had absorbed a part of an increase in the cost of purchased gas, the Colorado commission, in a refund proceeding, refused to permit the company to recoup this additional expense from refund moneys subsequently received from its supplier.

The state commission had determined at the time of the cost increase that the utility's rate of return could withstand the higher cost, and no showing was made in the instant proceeding that the financial integrity of the utility would be impaired if it was required to pass on all of the refund moneys to the ratepayers. Such refund moneys were said to be basically trust funds held for and on behalf of the ratepayers.

A distribution method was approved whereby consumers listed as of the end of each year of a four-year period would be reimbursed their proportionate share. Consumers not so listed, however, would not be foreclosed from participating. They will be permitted, under the commission's order, to file claims within 180 days. A period of ninety days for such claims suggested by the company was considered inadequate. Any claims which cannot be settled within thirty days of filing must be presented to the commission for final disposition.

The cost of making the refund will be paid from interest received by the company from short-term investment of the refund moneys and from interest paid by the supplier. *Re Public Service Co. of Colorado, I. and S. Docket No. 361, Application Nos. 13235, 15406, Decision No. 51992, April 1, 1959.*

In a separate proceeding, the commission approved a similar refund plan for Public Service Company's subsidiary, Pueblo Gas & Fuel Company, with an economical consolidation of the mechanics of making the two refunds. *Re Pueblo Gas & Fuel Co. I. and S. Docket No. 362, Application Nos. 13236, 15405, Decision No. 52004, April 1, 1959.*

Company Choice of Route for Certificated Power Line Upheld

COURTS will interfere and review the exercise of the power of eminent domain only in exceptional cases, the Mississippi supreme court pointed out. Judicial relief may be had when property is appropriated for private purposes under the guise of public use, or if the condemnation is sought for private gain, or from willful or malicious purposes, or to injure or destroy the rights of other parties, or when the condemnation is without warrant of law and oppressive. The court reversed a lower court judgment granting writs of prohibition to prevent an electric

company from taking land needed for the construction of a power line. In favor of the writs of prohibition, it was argued that the company could have chosen another route for its new line.

The court disagreed with this argument. The commission had found that the line was required by the public convenience and necessity, and it had been shown that the route chosen by the company was the most economical and feasible on account of the terrain and the accessibility to highways and to a railroad. Other routes were in fact available—one through rugged terrain and another through swamplands. The court ruled that there was no oppression involved in the company's choice of routes for the line.

Nor was the taking of lands in this case invalidated by the fact that a large new cement plant would incidentally be able to obtain needed power as a result of the new construction. *Mississippi Power & Light Co. v. Blake et al. 109 So2d 657.*

Pipeline Gas Project Authorized for Chicago Area at Temporary 22-cent Commodity Component Rate

THE Federal Power Commission has authorized Tennessee Gas Transmission Company and its subsidiary, Midwestern Gas Transmission Company, to supply gas to the Chicago-Gary area. Tennessee will deliver gas to Midwestern at Portland, Tennessee, and Midwestern will transport the gas to Joliet, Illinois, to supply three major distributors, Peoples Gas Light & Coke Company, Northern Illinois Gas Company, and Northern Indiana Public Service Company. Uncontradicted evidence indicated a growing need for gas in this industrial area.

Beginning in the fall of this year, Tennessee proposed to furnish Midwestern 261,320 Mcf of gas per day, increasing this volume to 363,432 Mcf per day by the first part of the third year. The two companies will construct new pipelines and compression facilities at a combined cost of more than $112 million.

Dividend Restriction

Tennessee's financing program appeared to be economical and feasible, but Midwestern's proposal involved an issue of 10-year, 5 per cent convertible notes which would increase its debt ratio to 81.6 per cent, substantially above the commission's standard of 75 per cent. The company indicated that it intended to pay them off out of earnings. As a condition to the certification of the project, the commission required that Midwestern pay no dividends on common stock until the notes are either converted into preferred stock or the total long-term debt is reduced to 75 per cent of total capitalization.

Two-part Rate Proposed

Midwestern's proposed rate to its three distributor-customers was strongly contested. The company proposed a long-term contract demand rate composed of a monthly demand component of $4 per Mcf and a commodity component of 22 cents per Mcf, assuming a 7 per cent rate of return. Staff and coal interveners objected to this rate, alleging that it was the result of negotiation and did not reflect a proper classification of costs to demand and commodity. They contended that the demand charge would bear more than its fair share of Midwestern's costs and the commodity charge less. They feared that these charges, finding their way into the rates charged by the distributors, would impose a larger proportion of Midwestern's cost upon the low load factor do-

mestic and commercial space-heating customers and a smaller proportion upon interruptible customers.

However, the load factor of residential space-heating customers in the Chicago area is approximately 25 per cent, so that the three distributing companies will have large amounts of off-peak gas to dispose of during most of the year. Such off-peak volumes would be sold on an interruptible basis to industrial concerns and for boiler fuel in the generation of electric power. It was contended that the commodity component of Midwestern's rate should not be higher, if the distributors are to compete with oil and coal in selling the off-peak gas.

Temporary Rate Authorization

The commission decided that there was no need in the circumstances of this particular case to make an immediate determination as to the proper level of the demand and commodity components of Midwestern's rate. The proposed rate (reduced to a $3.85 demand component, assuming an ordinary rate of return of 6¼ per cent) was authorized to be filed for a period of one year, whereupon the company would be required to file a rate satisfactory to the commission. Alternatively, Midwestern was given the option to file a straight rate with appropriate blocks or steps, subject to approval. The commission hastened to observe that it was not abandoning the Seaboard case (94 PUR NS 235), in which a method of classifying costs to demand and commodity was developed.

Each of three distributors will have approximately the same load factor of 83⅓ per cent, and as long as they maintain a common load factor the levels of the demand and commodity components will make no financial difference to them. In this case there is but one kind of customer, one kind of service, and approximately one kind of load factor, the commission pointed out. Since Midwestern's estimated revenues make the project feasible, it was considered unnecessary in this proceeding to approve or disapprove the 22-cent commodity component.

Moreover, because there was no experience upon which to judge Midwestern's costs in the project, or the validity of any classification or allocation which might be made, or the propriety of any resulting rate level, the commission thought the company's rate level could be more realistically determined after a period of operation. Tennessee's rate to Midwestern (a monthly demand component of $2 and a commodity component of 22.16 cents per Mcf) is being considered in a separate docket.

Dissent Hits Subsidization

Commissioner Kline dissented because he felt that "to certificate this project under a demand-commodity form of rate with a commodity component so low as to permit sales of large quantities of industrial gas below cost is not a well-founded project, is not required by the public convenience and necessity, and is definitely against the public interest."

The great bulk of the gas needed to serve the Chicago area was acquired by Tennessee in Louisiana at a price of 23.7 cents per Mcf, including severance and gathering taxes. If the 22-cent commodity component is permitted to go into effect, said Commissioner Kline, the present customers of Tennessee, under the rolled-in cost theory of rate making, together with the small householder and domestic user in the Chicago area, will be called upon to subsidize the industrial consumers. *Re Midwestern Gas Transmission Co. et al. Docket Nos. G-16841, G-16842, Opinion No. 320, May 12, 1959.*

Wellhead Deliveries of Gas Involve Jurisdictional Facilities

A FEDERAL appeals court ruled that Continental Oil Company, which sells gas from a single well, at the wellhead, to El Paso Natural Gas Company, was using facilities for the sale of natural gas in interstate commerce, subject to the jurisdiction of the Federal Power Commission. The court upheld the commission in granting the company a certificate (upon application filed under protest).

Gas passes from the well casing through two master valves at the wellhead and thence into a pipe belonging to the pipeline company. The two-valve system is standard equipment used to contain the gas for safety of operation. The first valve is used to shut off gas until it can be used. The second valve is for use in case of repairs.

The commission did not contend that the lower valve was a facility for the jurisdictional sales, and the court did not pursue this question. The company urged that the upper valve was a facility of production and exempt from commission jurisdiction under the "production or gathering" exclusion of § 1(b) of the Natural Gas Act. The court thought production was complete at or before the passage of the gas through the upper aperture of the upper valve. It held simply that the company "uses facilities for sale of the gas in commerce to El Paso which are not facilities in production of the gas and that the commission's order relating to the granting of the certificate must be affirmed."

Dissent Hits Judicial Fact Finding

In a dissenting opinion of considerable length, Judge Brown expressed the view that the court was engaging in "impermissible fact finding for which it has neither statutory warrant nor technical competence." For the court to find that "there are facilities for the sale of the gas that are not facilities of production" is to disregard the function of the court in reviewing commission decisions, said the judge.

He emphasized the duty of the court faithfully to apply the "production" exclusion contained in § 1(b). "Judged by the standards of the industry, not only by what was said and uncontradicted, but by what was done on a large scale in this very field, the commission could only find that all of Continental's facilities were essential to and a part of the production of gas," Judge Brown stated. *Continental Oil Co. v. Federal Power Commission, No. 17016, April 17, 1959.*

Regulation of Leasing and Domiciling of Motor Carrier Equipment

THE Florida supreme court upheld a commission order which prescribed rules and regulations governing motor carriers in the leasing and domiciling of their equipment and in using agents. Petitioning carriers asserted that the rules deprived them of alleged rights of domicile. To support their claim to such rights, they pointed to their certificates which authorized the transportation of household goods "to, from, and between all points and places in Florida."

Such authority, the court indicated, does not give them a right to domicile their equipment anywhere they please. The commission's power extends to the

service and safety of the auto transportation industry and to all matters affecting the relationship between carriers and the shipping public. The making of rules governing carriers' activities in the field of agents and leasing and domiciling of motor vehicle equipment is within the specific or implied statutory powers of the commission. Moreover, the commission may exercise reasonable administrative discretion to effectuate the intent of the law as it applies to varying conditions, said the court. *Fogarty Bros. Transfer, Inc. et al. v. Boyd et al. 109 So2d 883.*

Company and Customers Share Tax Benefits of Accelerated Depreciation

FOR equitable treatment, said the New York commission, there should be some sharing of the § 167 (Internal Revenue Code) tax benefits between a utility and its customers. Customers should share because it is the duty of the company to keep operating costs as low as is consistent with the maintenance of adequate service, and the company should share in order to furnish it an incentive to use the most advantageous tax depreciation method.

The proportions of sharing should not be predominantly to the company but rather in major part to the customers, it was held. In this proceeding the commission applied its recent policy statement (28 PUR3d 171) respecting the treatment of tax benefits of accelerated depreciation.

An increase of $300,000 in revenues was allowed as against $1,720,000 requested by the company. The first block of the rate schedule was authorized to be changed from 95 cents for 12 kilowatthours or less to $1.25 for 14 kilowatthours. This increase would provide the $300,000. The commission calculated that the company would earn a rate of return between 6.3 and 6.4 per cent, which was found to be reasonable.

Dissent Charges Inconsistency

Commissioner Eddy dissented on the major issue of the treatment of the tax benefits, pointing out that the commission has consistently allowed as a tax expense the amount of tax which would be payable on the income determined to be proper. It is now proposed to abandon this method, he said, in favor of a tax allowance of taxes actually paid.

He considered it wrong to use one set of figures in determining annual depreciation expense and another set of figures in computing the tax associated with it. By reversing the method used by the commission for at least fifteen years, said Commissioner Eddy, the majority produced a higher alleged rate of return despite the fact that it means actually less money to the company. *Re Central Hudson Gas & E. Corp. Case 19449, May 26, 1959.*

Commission Lacks Jurisdiction over Telephone Pole Space Rental to TV Company

THE New York commission dismissed a complaint by a television company against New York Telephone Company relating to rates and practices under a pole attachment contract. It was concluded that the matters involved in the

complaint did not fall within the jurisdictional prerogatives of the commission.

Basically, said the commission, the rental by the telephone company of space on its telephone poles is not a telephone or other utility service. Commission jurisdiction over collateral services by a utility extends no further than to prevent discrimination and to insure that revenues reasonably obtainable from such activities are used for the benefit of all the utility's subscribers. No facts were alleged in this case which made out a case of discrimination.

The commission observed that its previous decision (25 PUR3d 316), involving New York Telephone Company and Antenna Systems Corporation, did not presume to establish commission authority to regulate the level of rates charged by the telephone company for pole attachments or the standard contract terms relating to such attachments. It was there held that where the telephone company had voluntarily made its poles available for the use of several antenna system concerns, it could not discriminate among them by withholding the privilege from others. *Re Ceracche Television Corp. Case 19616, May 12, 1959.*

Certificate Revoked upon Unauthorized Termination of Service

THE Indiana commission made it abundantly clear that a public utility is not privileged to terminate service without first obtaining commission approval, even though it has suffered heavy losses for many years. In a proceeding on its own motion, the commission revoked the certificate of Evansville City Coach Lines as of the day it ceased operations. Claiming financial inability to continue service, the company had notified the commission that it intended to terminate operations. It opposed the revocation proceeding, however, hoping to transfer the certificate.

The company's theory was that it had become financially unable to operate and that, having no alternative but to terminate service, its only duty was to give reasonable notice to the commission. Abandonment on this basis, it was contended, should not be construed as a willful violation of the law or the certificate.

While the commission was sympathetic with the financial plight of the company, it pointed out that the company had a duty to exercise sufficient foresight to secure permission to abandon service. Nor could the company seek to transfer a certificate which could not survive abandonment.

The company would have the commission honor its certificate, it was pointed out, even though the company has itself not honored the obligation which is inseparable from the certificate. *Re Evansville City Coach Lines, No. 3952-A, 1, March 20, 1959.*

Hearing Inadequate to Support Suspension of Rates

THE New Mexico supreme court ruled that the commission had not granted "any hearing whatsoever" before suspending telephone rates proposed by Mountain States Telephone & Telegraph Company. The suspension order was, therefore, held invalid and the court refused to enforce it.

The new rates, proposed to be applied to several communities, were suspended

pending a statewide rate investigation by the commission. Upon hearing a statement of the company's position respecting the new rates, but without hearing any witnesses or receiving any exhibits, the commission entered its suspension order.

Suspension Rule Unconstitutional

The New Mexico commission is a constitutional body, and it has authority under constitutional provisions to investigate rates prescribed by utilities under their common-law right to fix their own rates. If the commission finds them unreasonable, it may order them changed, but only after a full and complete hearing.

In the instant case, the commission acted under a commission rule which provided for suspension of rates for ninety days, after notice and hearing. The company attacked the rule and the order issued under it as an exercise of power beyond the authority conferred by the Constitution. The rule, it was contended, amounts to a substantive change in the commission's constitutional power — an attempted amendment of the Constitution by rule. The commission argued, on the other hand, that the rule of suspension was a mere procedural one and that no hearing was actually necessary since the suspension order was merely interlocutory, issued to maintain the status quo until the rates could be investigated.

The court sustained the company's position, holding that the rule, in fact, related to a substantive matter beyond the commission's constitutional power. No suspension power had been conferred upon the commission. A full and complete hearing had been required. If such a hearing had been granted, the court observed, there would have been no need to suspend the rates since the commission would then have been in a position to rule finally and conclusively on the matter. *Mountain States Teleph. & Teleg. Co. v. New Mexico State Corp. Commission, 337 P2d 943.*

Other Recent Rulings

Dump Truck Hourly Rates. The Massachusetts commission denied a petition of dump truck operators for an increase in minimum hourly wages, commenting that it would not entertain such petitions unless and until all reasonable effort to improve and correct conditions prevalent to the industry had been taken by the carriers themselves. *Re Dump Truck Owners Asso., Inc. et al. DPU 12674, April 13, 1959.*

Electric Company Return. The Wisconsin commission considered a return of 6 per cent on an electric company's net plant investment rate base reasonable. *Re Cross Plains Electric Co. 2-U-5153, April 14, 1959.*

Lack of Adequate Means. The New Jersey commission pointed out that the number of the members of the public affected by a proposed train discontinuance is not necessarily determinative where lack of other adequate means of transportation appears. *Re Central R. Co. of New Jersey, Docket No. 11212, April 17, 1959.*

Nature of Operative Rights. The California commission commented that operative rights, as such, do not constitute a

class of property which may be capitalized or used as an element of value in rate fixing for any amount of money in excess of that originally paid to the state as the consideration for the grant of such rights. *Re Sterling Transit Co., Inc. Decision No. 58291, Application No. 38874, April 21, 1959.*

Unlitigated Claim. The California commission commented that, while the successful prosecution of a lawsuit for damages against an applicant for a highway common carrier certificate would result in a change in the financial picture, it was not disposed to permit the assertion of an unlitigated claim to color the result. *Re White Inter-Valley Transportation, Decision No. 58297, Application No. 40164, April 21, 1959.*

Three-judge Court. The U. S. district court held that a federal three-judge court did not have jurisdiction to review an ICC determination that a lower intrastate rate was applicable to a specific shipment and not a higher interstate rate where the sole purpose of the administrative proceeding was to provide a state court with expert judgment as to the applicable rate, since it is only as an extraordinary dispensation for handling specified types of cases which are likely to be important and of considerable public interest that Congress has authorized the convening of special three-judge district courts. *Eastern Freight-Ways, Inc. v. United States et al. 170 F Supp 848.*

Tariff Construction. The U. S. district court held that it did not have jurisdiction to construe freight tariffs, in a case where a carrier sought to recover freight rate deficiencies, since the Interstate Commerce Commission had primary jurisdiction to determine which of several rates were applicable to the transportation. *Northern P. R. Co. v. United States, 170 F Supp 854.*

Three-judge Court Review. The U. S. district court held that administrative agency orders which merely direct that a matter proceed to hearing and administrative decision, but which do not require a party to take or refrain from taking any substantive action, are not reviewable by a three-judge district court. *Territo et al. v. United States et al. 170 F Supp 855.*

Failure to Contest Appeal. Neglect of the commission to file a brief controverting errors complained of by an appellant may be taken as a confession of such errors, and the order may be reversed and the cause remanded without prejudice, the Indiana appellate court held, noting, however, that the rule would not be invoked unless the appellant's brief makes an apparent showing of reversible error. *Mucker v. Indiana Pub. Service Commission, 157 NE2d 308.*

Uniform Sewer Rates. The New Jersey superior court held that an annual service charge difference of $26 between two sewer districts, based primarily on the cost of extending the sewer to unserviced areas, was enough to invalidate rates established by a sewerage authority, because of lack of uniformity in contravention of a statute. *Kline v. Bellmawr Sewerage Authority, 150 A2d 88.*

Crossing Costs Apportionment. The Connecticut commission held that it had no authority to apportion the cost of a bridge against a railroad as requested by the highway commissioner where the purpose of the bridge was not to remove a dangerous condition but rather to relocate

existing roads incident to the reconstruction of a highway. *Re Connecticut State Highway Comr. Docket No. 9737, April 23, 1959.*

Gas Certificate. The Illinois commission approved an application for a certificate authorizing construction, operation, and maintenance of a gas distribution system where it was shown that the applicant had obtained a 30-year franchise from the municipality involved, that its supply was adequate for present and future customers, and that there was a public need for the proposed system. *Re United Cities Gas Co. No. 45761, May 6, 1959.*

Telephone Exchange Sale. The Illinois commission approved the sale of two mutual telephone exchanges to the Illinois Consolidated Telephone Company where it was shown that present service was inadequate and the sellers did not have the facilities to provide adequate service, that the purchase price was reasonable, and that the buyer was able and willing to improve service and establish a dial system. *Re Gays Mut. Teleph. Co. No. 45824, May 6, 1959; Re Windsor Mut. Teleph. Co. No. 45825, May 6, 1959.*

Agency Station Discontinuance. The Missouri commission held that, in determining whether or not there is a public need for the services of an open agency station, it must consider the use which the public makes of the services rendered by the station and whether or not a service can be substituted which will fill the public need and not unreasonably inconvenience the public. *Re Chicago, M. St. P. & P. R. Co. Case No. 14,095, May 11, 1959.*

Past Unauthorized Service. The Pennsylvania superior court held that the commission was not required to consider past unauthorized service as evidence of public need for a proposed service, particularly where the shippers who had used the unauthorized service could have used the services of authorized carriers. *Follmer Trucking Co. v. Pennsylvania Pub. Utility Commission, 150 A2d 163.*

Wax Not Edible. The Pennsylvania superior court has held that automobile body cleaners and wax are not "groceries" within a certificate authorizing a motor carrier to transport groceries, lubricants, and paper, since the term "groceries" means articles for human consumption and articles used in the preparation of food. *Darby (Darby Transfer & Storage) v. Pennsylvania Pub. Utility Commission, 150 A2d 378.*

Evidence Supports Order. Reversing a lower court judgment, a Texas court of appeals upheld a commission order granting a certificate amendment which would permit a motor carrier to furnish improved service over an alternate route, adequate evidence to support the order being found in the testimony of numerous witnesses that existing service was inadequate and that the proposed improved service was required. *Merchant's Fast Motor Lines, Inc. et al. v. Red Ball Motor Freight, Inc. 322 SW2d 35.*

Subpoenas Denied. The Federal Power Commission denied an application for subpoenas duces tecum where the applicant failed to set forth specifically the documents desired and the facts to be proved in sufficient detail to indicate the materiality and relevance of such documents. *Re Champlin Oil & Refining Co. Docket Nos. G-9277 et al. April 22, 1959.*

Operations Combined for Rate Mak-

class of property which may be capitalized or used as an element of value in rate fixing for any amount of money in excess of that originally paid to the state as the consideration for the grant of such rights. *Re Sterling Transit Co., Inc. Decision No. 58291, Application No. 38874, April 21, 1959.*

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Operations Combined for Rate Mak-

ing. The operations of three telephone companies commonly owned and operated as a unit, with common management and maintenance staff, were combined by the Wisconsin commission in fixing rates for their four similar and predominantly rural exchanges. *Re Annaton-Preston Teleph. Co. et al. 2-U-5109 et al. April 23, 1959.*

Discriminatory Rate Proposal Denied. The Wisconsin commission denied a telephone company proposal to increase exchange rates so as to provide an overall rate of return of 7.04 per cent on its total investment in exchange and toll facilities since such rate treatment would unfairly place part of the cost of rendering toll service to other companies on the applicant's customers; a reasonable return was allowed for each particular exchange. *Re Urban Teleph. Co. 2-U-5134, April 27, 1959.*

Rates Contingent on Wage Increase. The Wisconsin commission allowed as an expense a proposed wage increase in authorizing a rate increase for a small telephone company, but the new rates were made contingent upon certification that the wage increase has actually been paid. *Re Amherst Teleph. Co. 2-U-5144, April 27, 1959.*

Capitalization of Operative Rights. The California commission said that operative rights, as such, do not constitute a class of property which may be capitalized, or used as an element of value in rate fixing, for any amount of money in excess of that originally paid to the state as the consideration for the grant of such rights. *Re Aetna Freight Lines, Inc. Decision No. 58400, Application No. 40222, May 12, 1959.*

Applicant's Needs Not Controlling. In denying additional authority requested by a motor carrier, the California commission rejected a contention that the additional authority should be granted because it would help the carrier's financial condition. *Re Peninsula Motor Express, Decision No. 58379, Application No. 39789, May 7, 1959.*

Common Carriage. The California commission said that the basic test for determining whether a carrier is a common carrier or a contract carrier is whether or not there is a holding out to serve the public or any portion thereof, and that the existence of contracts in and of themselves is not the determining criterion. *Bliss (Bliss Film Delivery) v. Gilboy et al. Decision No. 58408, Case No. 6104, May 12, 1959.*

Transit Fare Increase. The Massachusetts commission approved a transit company's application for increased cash fares that would produce an operating ratio, after income taxes, of 96.92 per cent, commenting that, under the most optimistic circumstances and without making any provision for increased labor costs or further normal decline in riders, the operating ratio could hardly be called a safe margin of operation and that the approved increase was still within the prevailing zone fare of other companies. *Re Interstate Transit Corp. DPU 12797, May 12, 1959.*

Electric Company Return. The Massachusetts commission considered reasonable a return of 6.25 per cent on an electric company's rate base measured by net plant in service. *Re Northern Berkshire Electric Co. DPU 12642, May 18, 1959.*

Industrial Progress

laho Power Takes "Costly" Steps to Protect Fish on Snake River

THOUGH only 8 per cent of the umbia River salmon and steelhead wn above Brownlee Dam on the ke River between Idaho and Ore- extensive and "costly" steps have taken to protect them, it was re- ted recently at the Summer and ific General Meeting of the Amer- Institute of Electrical Engineers, ttle.

Upstream migrants are caught in ventional fish traps for transpor- n around dams," four Idaho er Company engineers said in a er describing the dam and hydro- tric installation. "The major prob- at the Brownlee site is the passage he downstream migrants by the . At lower head plants on the ke and Columbia Rivers below wnlee, the 'small fry' returning to ocean pass through the spillway turbines with nominal mortality. h a head of 277 feet at Brownlee, mortality would be excessive be- e of the height and velocity of spillway and the excessive pres- change through the turbines. dies by the United States Fish and dlife Service and the state fishery ncies (in Idaho and Oregon) in- ted that the only alternative was atch the downstream migrants and sport them downstream in ks."

he report was made in a paper ribing the Brownlee installation ch is the first step in the develop- t of the middle stretch of the ke River between Weiser, Idaho the upstream end of Hells Canyon ge. Other hydroelectric plants on Snake are Oxbow and Hells Can- Authors of the paper were G. B. e, T. R. Heikes, W. B. Mitchell O. F. Schaufelberger, all of e, Idaho.

"The facilities for collection of the downstream migrants are patterned after a so-called skimmer system, which is based on the theory that downstream fish are reluctant to sound to any great depth to find their way out of a reservoir and artificial currents created in the reservior can be used to attract fish to collection devices," they said. A fine mesh barrier 2,800 feet long was constructed across the reservoir forebay 4,800 feet above the dam. Fish are caught in traps in the net, then hauled downstream below the dam. Skimmer traps are located at each end and the center of the net. "Each trap consists of a steel barge approximately 30½ feet wide, 40 feet long and 18 feet deep, to which is attached an entrance channel 14 feet wide and 14 feet deep at the entrance and 27½ feet long, with converging sides and a sloping bottom. The barges are compartmented to provide waterways, trimming tanks, machinery holds, and fish holding tanks. Their displacement is 120 tons."

Pumps on the barges, rated 45,000 gallons per minute, pull water into the trap through the entrance channel, creating an artificial current, which the fish follow.

Features of Honeywell 800 Computer as Scientific Tool Outlined in Booklet

FACTORS of application of the newest all-transistorized electronic computer system to scientific problems are described in a new booklet printed by the Datamatic Division of Minneapolis-Honeywell Regulator Co. It outlines the speeds, capacities and overall performance qualifications of the Honeywell 800 system and gives specific examples of how its design logic and other features contribute to its use and economy in scientific computation.

The solid-state computer will be delivered to customers beginning in the last quarter of 1960, the company has announced.

A copy of the booklet, "Honeywell 800—A Superior Scientific Computer," may be obtained at no cost by writing Honeywell's Datamatic Division, 151 Needham St., Newton Highlands, Mass.

R-R Booklet on Records Management Program

PUBLICATION of a new four-page brochure, which tells how recurring annual dollar savings and other benefits can be effected by means of a scientific records management program, has been announced by Remington Rand Division of Sperry Rand Corporation.

Included in this brochure is a recent study showing that approximately 70 per cent of the records in the average file have outlived their active usefulness and yet are retained in an active file. The study shows how records held by the average organization can be reduced to four classifications: 1) retained permanently, 2) retained for current needs, 3) destroyed, and 4) transferred.

Percentage figures accompanying these classifications are then interpreted to show how a firm can accurately measure its own filing costs and efficiency.

The brochure contains a battery of four tests by means of which individual companies can determine their own needs for a records management program. It also explains in detail how Remington Rand's Business Services Department handles a typical records management job.

Copies of this brochure can be obtained at any Remington Rand branch office, or by writing to the company

(*Continued on page* 28)

at 315 Fourth Avenue, New York 10, N. Y. and requesting BSD-32 Rev. 2.

AHLI Announces Guides to Help Utilities Promote Home Lighting

A NEW aid for utilities to use in promoting residential lighting is available in two sets of lighting recommendations announced recently by the American Home Lighting Institute (AHLI), Chicago.

The recommendations are listed in the Guide to Advanced Light for Living, newly developed for top-bracket residences, and the Minimum Light for Living Standards, revised to include a checklist of fixture requirements.

"Many utilities have already incorporated the Minimum Standards into their Medallion Home programs," according to Ted Cox, managing director of AHLI, a trade association of fixture manufacturers and distributors.

"In addition, there is a growing demand for recommendations that go beyond the minimums, especially for the better residence and for model homes which display lighting at its best. For this purpose, the Guide to Advanced Light for Living has been developed," he said.

Single copies of both sets are available at no charge from the American Home Lighting Institute, 360 North Michigan Avenue, Chicago 1, Illinois.

Harvester Introduces Two New Cable Layers

TWO new cable layers, designed for both fast and precise laying of flexible cable or plastic pipe, have been introduced by International Harvester Company.

The cable layer is a subsoiler standard mounted on a special cable laying structure. A spool of cable, mounted on the cable layer frame mounting, is threaded through porcelain-lined rings down through a specially constructed tubing on the rear of the subsoiler standard.

The cable is fed out approximately four feet behind the subsoiler standard while still on top of the ground to permit splicing. The standard is then lowered into the ground with forward motion to a depth of 23 inches. Covering is not necessary as the slit made by the standard closes behind in a matter of a few hours.

The International No. 1 direct-connected cable layer is built for use with Farmall and International tractors with two-point Fast-Hitch. The International No. 10 cable layer trailing type unit for use with tra having 50 to 85 drawbar horsepo

VEPCO Places Third Portsmouth Unit in Operat

THE third unit of the Portsm Power Station of the Virginia tric and Power Company was p in operation recently adding 17 kilowatts to the Vepco system unit, capable of lighting a city the size of Portsmouth, brings total capability of the Portsmouth tion to 370,000 kilowatts, maki the largest generating station Vepco's system.

The new unit was constructed cost of more than $21,500,000 ac ing to Miles Cary, Vepco vice p dent. Mr. Cary said the new add is a part of the company's conti expansion to keep up with the g ing customer demand for electri

Construction is now in progre 170,000 kw additions to Ve Chesterfield Power Station, du completion in 1960, and Possum P Station, due for completion in Completion of these projects bring Vepco's generating capabil more than 2,000,000 kilowatts 1962.

Within the last three years, V has constructed a new statio Yorktown and has added a new to the Bremo Power Station, Charlottesville. The company als filed an application with the Fe Power Commission requestin license to construct a 200,000 kil hydroelectric station on the Ro River near Gaston, N. C.

Dresser Publishes New Wo Wide Guide to Equipme And Technical Services

THE 1959 edition of Dresser In tries' "World-Wide Guide to Dr Equipment and Technical Ser has just been published and is distributed to executives in th gas, chemical, electronic and g industries. The colorful 68-page is profusely illustrated and pro reference to the many product services supplied by the Dresser of companies throughout the w Convenient lists of Dresser r sentatives and their addresses i ious countries are also included.

Copies may be obtained witho ligation by writing to any o Dresser companies or to Dresse dustries, Inc., Republic National Building, Box 718, Dallas 21, T

(*Continued on page 29*)

INDUSTRIAL PROGRESS—(Continued)

to-Tower Aerial Platform Units for Globe Cleaning and Lamp Replacement

EE Strato-Tower Series LST hydraulic aerial rm units are now in service for a leading light ower company for street light maintenance, ac- g to a recent announcement. These units provide rking height of 35 feet for the maintenance man. nits are designed for two-man, maintenance and , operation.

mplete specifications are available to officials who inquiries to Strato-Tower Division, Young Spring re Corporation, P. O. Box 103, Elkhart, Indiana.

Auburn Machine Offers New Trencher For I-H Tractors

EW model Auburn Gear-Draulic Trencher for In- ional Harvester 340 and 460 Utility tractors is nced by Auburn Machine Works, Inc., Auburn, aska.

e trencher will trench at widths from 6 to 14- s and at depths to 6 feet. It reputedly will dig up feet of trench per hour.

has a unique forward propulsion drive utilizing a lly installed power-take-off that transfers power the tractor through a combination variable hy- c drive and speed reducer, to a geared spacer that, n, returns the power back into the tractor's power at a "creep" speed. This actually converts the r's speeds from miles per hour to feet per hour ore efficient digging. It can be engaged or dis- ed to permit the conventional tractor drive to oper- regular speeds.

e variable hydraulic drive automatically adjusts the rd speed to intermittently changing soil conditions nterrupted smooth trenching.

e unit features a non-clogging digging ladder with ate right and left cutting teeth that cut the trench ft the dirt to ground level where augers convey both sides of the trench.

erchangeable digging chains and booms are avail- o accommodate various widths and depths of es desired. Special Pent-A-Bits are also available se in rock, shale and frozen ground.

chure Dealing with DC Failures Available Through Rome Cable

OCHURE on "The Effects of D-C Tests and the e of D-C Failures in Cable Insulation" is now ble from Rome Cable salesmen.

e booklet was written by R. C. Graham, Chief En- at Rome Cable. It features a discussion of ob- ions derived from a summary of thousands of overpotential tests made at the company's factory aboratory, and from experience in field testing. ests involved cable insulation of the rubber or oplastic type designed for power applications at es generally in excess of 2000 for either under- d, aerial, conduit, or other raceway installation. luded in the booklet (Bulletin RCT 712) is a table ng leakage at a given test voltage as compared to service.

(*Continued on page* 30)

Colorado Utility Plans Computerized System for On-Line Gas Dispatching Control

THE first computerized system for on-line gas dispatching control was announced recently by GPE Controls, Incorporated, 240 East Ontario Street, Chicago, Illinois. A GPE Controls Libratrol-500 Process Control System will be installed in the Dispatching Division of Public Service Company of Colorado.

The computerized system will monitor gas flow meters at purchase points throughout the greater Denver area and the State of Colorado on Public Service Company's and Subsidiaries' systems. It will compute the total hourly and accumulated demand for each hour of the day. The utility company is charged for gas on the basis of a commodity charge and its demand peaks. The computer information will be used by the Gas Load dispatcher to control these peaks to avoid higher demand charges than are absolutely necessary to serve the utility's requirements.

In addition to his on-line duty in the dispatching counter, the computerized system will provide additional engineering calculations for other divisions of the Public Service Company.

The Libratrol-500 system will release the Gas Load Dispatcher from the pressure of monitoring and calculating data necessary to control the peak demands. Charges for purchased gas are based on a two-part rate which combines the basic commodity charge for each cubic foot and a demand charge based on the highest 24-hour usage during the year.

The Dispatcher must monitor the hourly demand to insure that the consumption does not exceed the preestablished peak value. Should the demand rise above the existing peak value, the demand charge would be revised upward with resulting increased charges to the Public Service Company of Colorado.

Involved in evaluation of the demand is the necessity for recording differential pressure, static pressure, temperature, and specific gravity values at some 15 metering stations. The data measured at these stations, which include 44 meters, are used to compute the individual demand of each meter. The sum of these values are totaled to obtain the system peak on which the demand charges are based. At present, the readings and computations must be laboriously performed by the Gas Dispatcher each and every hour throughout the day. The number of readings and the complexity of the calculations take up 30 to 45 minutes of each hour. This is valuable time lost to the Dispatcher who must also make critical system operating decisions regarding the control of the demand based on weather, industrial activity, and other factors affecting gas consumption.

Relegating the monitoring and computing functions to the computerized system frees the Dispatcher so that he may make full use of his years of experience in supervising the system.

The Libratrol-500, manufactured by Librascope, Incorporated, is a highly flexible, versatile computerized control system adaptable to both existing and in-design industrial processing systems.

In operation, the Libratrol-500 Process Control System receives incoming signals from monitoring devices, processes the information reduced to digital data through a general purpose computer and provides accurate control information either for a human operator, or for automatic control elements within the processing equipment.

This new control system is especially suitable for use in petroleum and chemical industries, gas and electric utility plants, in steel mills and the aircraft industry, and in atomic energy plants, according to the announcement.

All-Aluminum Towers Pass Full-Scale Load Tests

GROWING interest in the potential of all-aluminum towers for electrical transmission lines was indicated recently with the announcement that an aluminum tower has satisfactorily passed utility specifications in recent full-scale load tests.

The tower tested was the initial unit of a 44-tower order by Commonwealth Edison Company, Chicago. The towers will be constructed on an experimental basis as part of a 138 KV transmission line on the utility's system.

The project represents a joint activity of the utility and of Aluminum Company of America. Tower tests were performed for Alcoa by American Bridge Company.

The proposed line is the second aluminum tower project to be announced. Last November, Service Electric & Gas Co., N N. J., announced an all-alu tower line program, also in c tion with Alcoa.

Shipment of the first portion Commonwealth order is expec late July or early August of thi Towers will be field-erected fr truded aluminum shapes, fab by Alcoa and shipped to the site for assembly. Each of the towe be entirely assembled with alu bolts.

The towers are being desig Alcoa, working from line heig loading specifications supplied utility. Although towers will b ually similar to typical existing mission structures, the towers rectangular cross-sectional desi stead of the more conventional design.

G-E Excutive Reaffirms Doubling of Demand fo Power Equipment in 10 Y

A DOUBLING of the dema power generating equipment i next 10 years was reaffirmed to a General Electric Company t manufacturing executive.

Herman R. Hill, Jr., Manag Manufacturing for the Comp Large Steam Turbine-Generato partment, spoke at a machine t dustry press conference unveil multi-million dollar array of mated machine tools currently installed and placed in operati the department.

Mr. Hill pointed out that the advanced machine tools now the department a production ca of turbine-generators sufficien meet the electric power indu need for the next several years.

He added that the future pr tion demand will require the h talent of the company's develop and design engineers. It will als quire the fullest utilization of th ents of its manufacturing engi and the labor-aiding automate chinery that they can apply to th

Pointing to the special natu the department's facilities, Mr. said, "We have to maintain the essary technology and, in fact, tinually acquire new technology manufacturing techniques to a inspire and partially design s tools which are adaptable to the facture of our product."

To utilize fully the finest fac

world for the manufacture of turbine-generator units, Mr. aid "we must be able to com- te a business-like approach to the personnel who are using facilities."

explained that this is being done ting up a number of turbine ents businesses within the de- ent with a manager of shop op- s in charge of each business. hortens the line of communica- etween the direct and indirect and the head of the manufac- operation.

w Bulletin Describes Two ican Aluminumcase Meters

ETIN 305, just published by can Meter Company, provides tails on American AL-175 and 0 Domestic Aluminumcase Me- Both meters are light weight— unds—and have a maximum g pressure of 5 psi. They have f capacity of 175 and 250 cfh tively, at ½-inch w.c. differ-

erican Meter Company, which factures measurement and con- uipment for the gas, petroleum ied industries, describes the op- n, construction and specifica- for both meters in the new n, entitled "American AL-175 L-250 Aluminumcase Meters and 250 cfh." Copies may be d from American Meter Com- Advertising Department, 920 avenue, Erie 6, Pennsylvania.

inghouse to Build Turbine- erator for Commonwealth Edison

Westinghouse Electric Corpora- ill build a 305,000-kw turbine- tor for the Commonwealth n Company's Waukegan gen- g station located 30 miles north icago, Illinois. The unit, sched- or delivery in July of 1961, will se the capacity of the Waukegan to more than 1,000,000 kilo-

Bechtel Corporation of San sco, California has been named er-constructor for the addition station. The turbine will be y the Westinghouse steam di- in Lester, Pa., and the gen- by the company's large rotat- pparatus department in East urgh, Pa.

Commonwealth Edison Adds New Unit to Joliet Station

A NEW 305,000-kilowatt generating unit at the Joliet Station of Commonwealth Edison Company is now in regular commercial operation, it was announced recently. The addition raised the net generating capability of the utility above the 5,000,000-kilowatt mark.

The new turbine-generator was built by General Electric Company. Steam for the new turbine is supplied by a single boiler, 20 stories high, which was built by Babcock & Wilcox Company.

The new Joliet unit brings the net capability of the Edison system to 5,021,000 kilowatts, about double the utility's capacity of 10 years ago. It is the third of this size to be placed in service by Commonwealth in the past 12 months.

PG&E Asks State PUC to Approve A-Power Plant

PACIFIC Gas and Electric Company recently asked approval of the California Public Utilities Commission to build Humboldt Bay atomic power plant near Eureka, announced in February 1958.

This is the plant which PG&E believes will break the economic barrier to everyday public use of atomic-electric power. With the second core of uranium fuel, probably to be installed in 1965, the Humboldt Bay A-plant is expected to generate electricity at a cost equal to the cost of electricity produced in PG&E's new oil- and gas-fueled steam plant near Eureka.

PG&E President N. R. Sutherland said that the plant will be financed entirely by the company. As with the PG&E-General Electric Vallecitos Atomic Power Plant near Pleasanton, Humboldt Bay will be built without subsidies of any kind.

Today's application sets the plant's capacity at 50,000 kilowatts. It will be operated at that level initially, but is designed to produce power at substantially higher capacities later.

Earlier in June PG&E filed an application with the Atomic Energy Commission for permission to build the plant. Construction work is scheduled to begin at Humboldt Bay next spring. The station will require two years to build. Bechtel Corporation is the general contractor. General Electric will manufacture the boiling water reactor and the electrical equipment.

Bright Star Industries to Expand Facilities

BRIGHT Star Industries, Clifton, New Jersey, manufacturers of dry batteries and flashlights, broke ground recently for a new building to enable the company to double its output of Electrolytic Manganese Dioxide. This material is a basic ingredient of dry batteries, especially high voltage types. The new building will be located at the Clifton, New Jersey factory of Bright Star Industries, adjoining the present Electrolytic Manganese Dioxide Plant.

In making the announcement, Robert Frost, President of Bright Star Industries, stated: "This expansion was originally planned for 1960 but sales increases, plus the early completion of three new production lines to manufacture new types of high voltage batteries, made it necessary to accelerate the expansion program. It has been necessary to make substantial purchases, in recent months, of this material from outside sources and the new plant is designed to meet the current needs of the company with additional space available for a further 25 per cent expansion in output.

"Also included, will be a new analytical laboratory to handle the increased work for the quality control laboratories due to the new expanded facilities."

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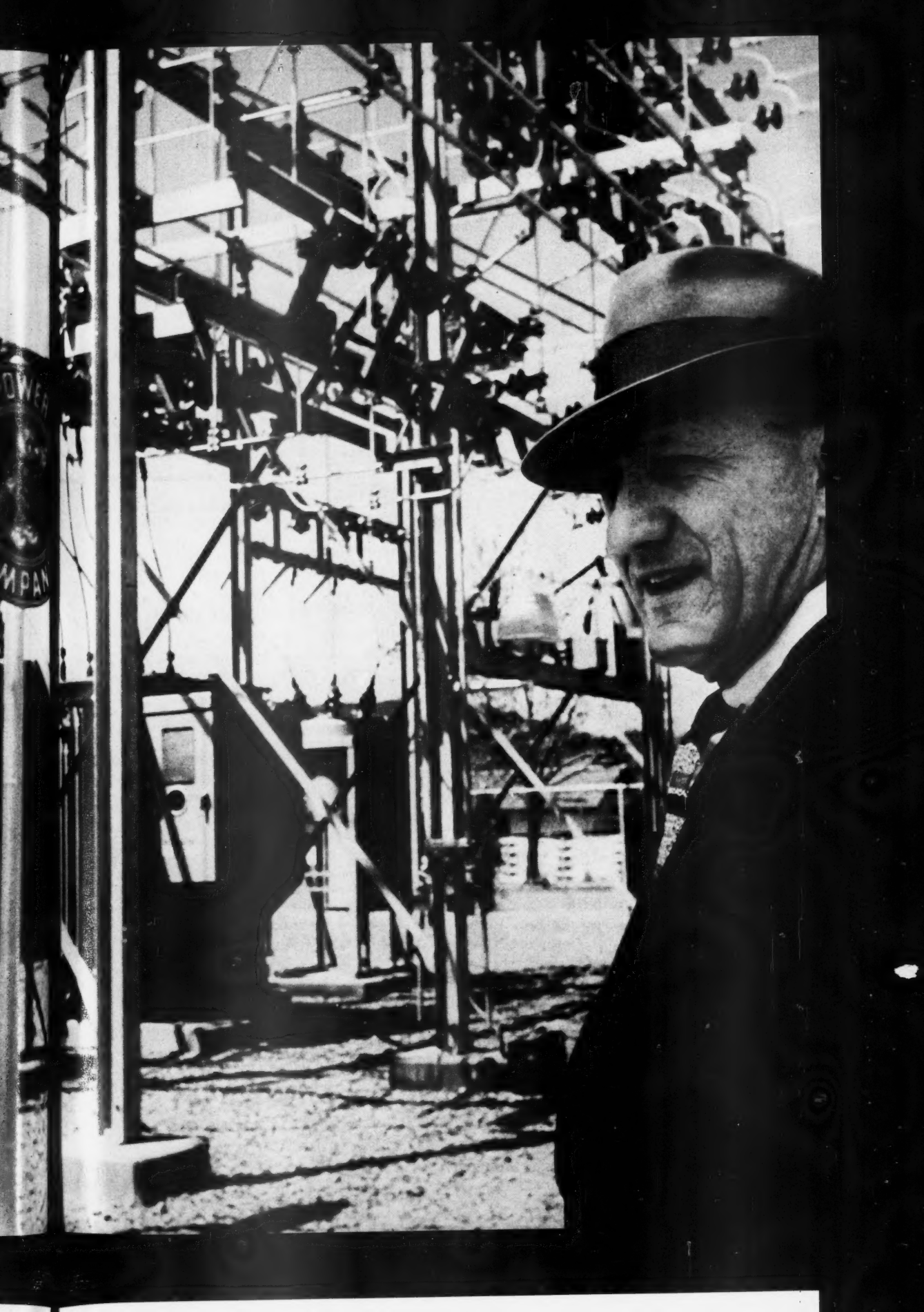

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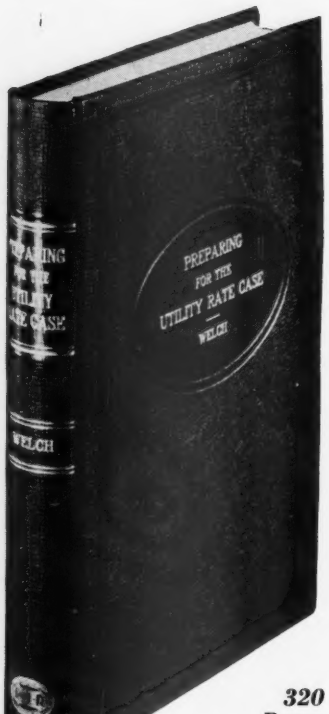

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- **aiding the consumer by making possible faster plant and service improvements**
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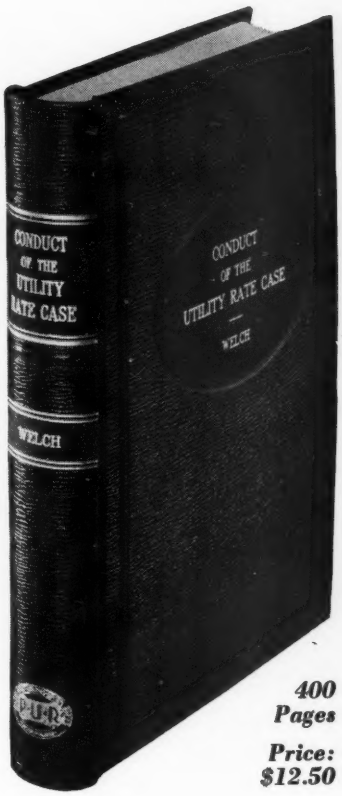

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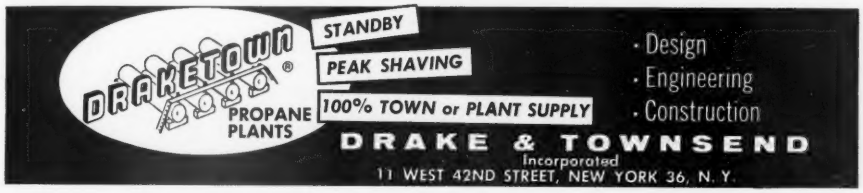

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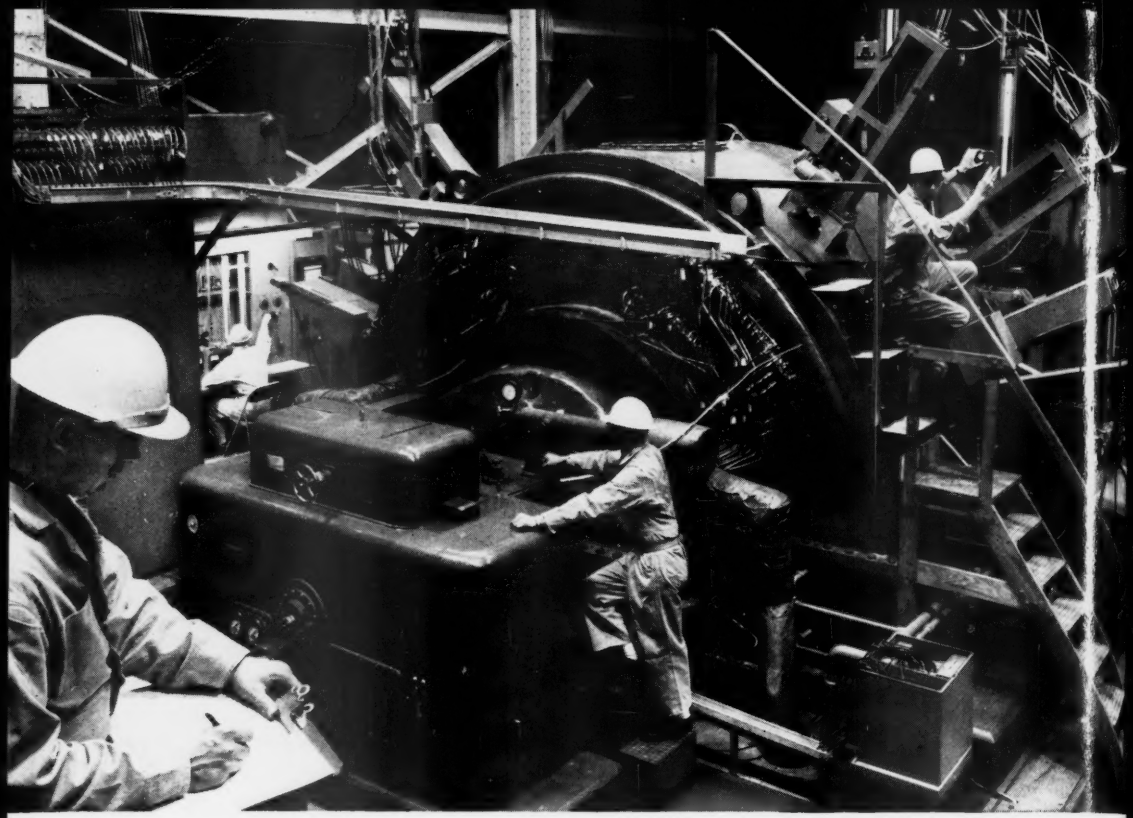

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